Saturday Review

APRIL 2, 1960 / 25¢

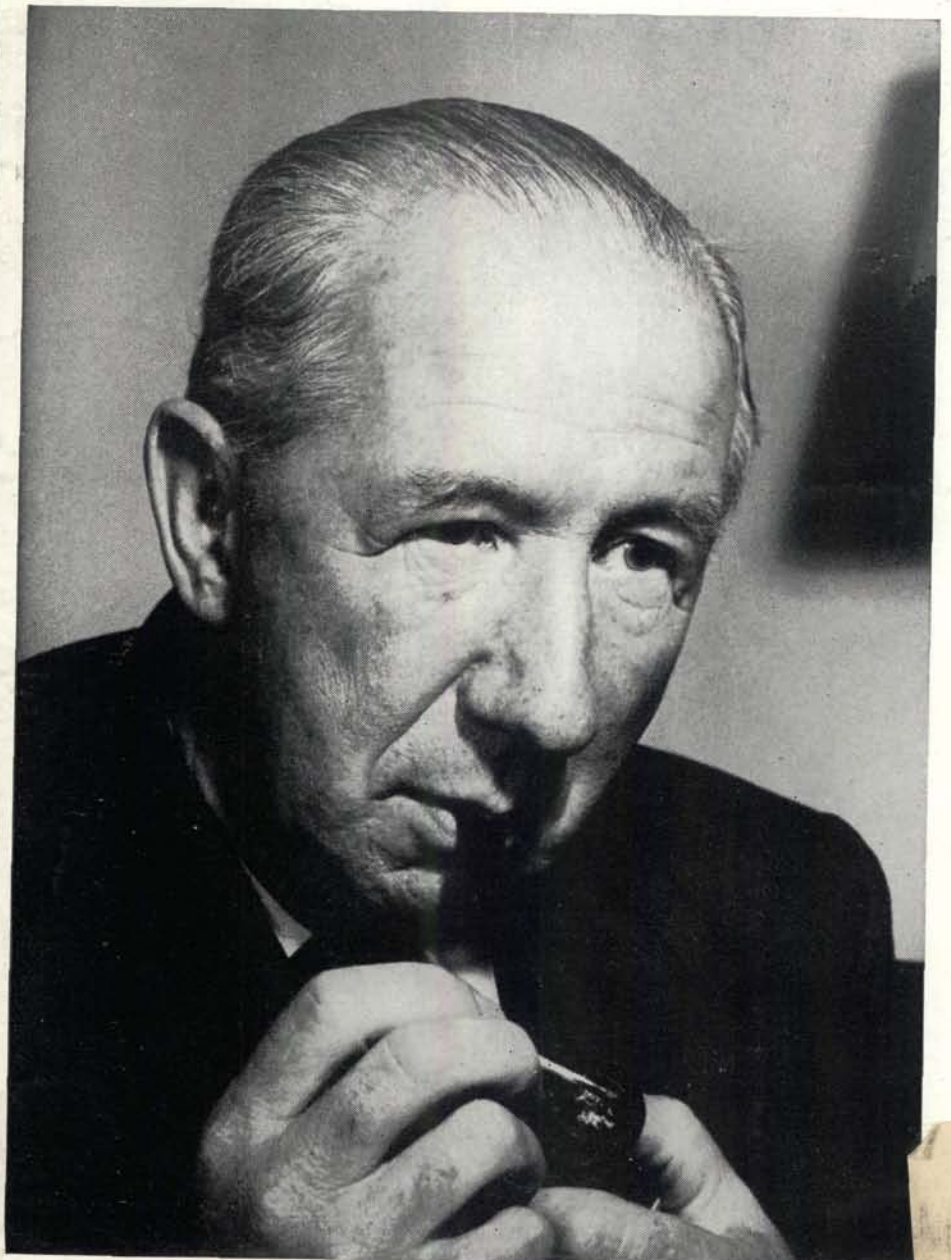
SR/RESEARCH
SCIENCE & HUMANITY

THE WONDERS THAT AWAIT A MICRO-MICROSCOPE

By Richard P. Feynman

RUSSIAN WRITING: A SOVIET EDITOR'S REPORT

By Alexander Chakovsky



Nevil Shute,
author of
"Trustee from the Toolroom."
(SEE BOOKS)

Property of
AMBASSADOR COLLEGE LIBRARY
Big Sandy, Texas

PRODUCED 2005 BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Fast, efficient handling is essential to the economic processing of low-grade ore. This new conveyor hauls ore out of the Berkeley Pit at the rate of 33 tons a minute.

How new methods yield new treasure from "the richest hill on earth"

From Anaconda's famous Butte Hill in Montana has come more than *three billion dollars* of mineral wealth — copper, zinc, manganese, lead, silver and gold. Its fabulous output of copper — more than has been produced by any other district in the world — has given impetus to hundreds of new products and new jobs, and contributed to progress in many fields.

The ever-increasing demand for copper is a perpetual challenge to mining engineers who must devise ways and means to handle larger quantities of lower grade ores with ever-higher efficiency. An example of how these challenges are being met by Anaconda is seen at Berkeley Pit, at the eastern end of "the richest hill on earth" in Butte. Here, by open-pit methods, Anaconda is obtaining low-grade copper ores that could not be economically mined by conventional underground methods.

These ores occur beneath 250 feet of waste overburden, two tons of which must be removed for each ton of ore recovered. And more than *150 tons* of ore must be hauled and processed to produce *a single ton* of copper.

Newest advanced facility at Berkeley Pit is the conveyor system shown above. Six separate belt conveyors provide a flexible flow of ore from the primary crusher in the Pit to storage and loading bins. The system is now moving more than 28,000 tons of ore a day, and is designed to handle substantially larger tonnages.

The new facilities at Berkeley Pit are just a part of the program in which Anaconda is continually applying more than 60 years' experience, not only to the development of new copper sources, but to meeting the expanding needs of industry for more and better products in the entire nonferrous metal field.

59176A

ANACONDA®

PRODUCERS OF: COPPER · ZINC · LEAD · ALUMINUM · SILVER
GOLD · PLATINUM · PALLADIUM · CADMIUM · SELENIUM · TELLURIUM
URANIUM OXIDE · MANGANESE · ARSENIC · BISMUTH · INDIUM

PRODUCED 2005 BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Property of
AMBASSADOR COLLEGE LIBRARY
Pasadena, Texas

APĒCO the only 1-step ~~automatic~~ copymaker that can

Everything Written every COLOR EVERY PAPER EVERY BLUEPRINT

EVERYTHING DRAWN* Every Photo EVERY INK Everything Mimeographed

Everything Printed every color EVERYTHING TYPED

EVERY PAPER EVERYTHING STAMPED Every pencil notation

COPY EVERYTHING!

Styled by Charles E. Jones and Associates

APĒCO UNIMATIC* AUTO-STAT

Completely Automatic "Once Through" Operation

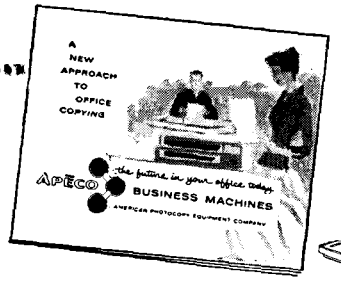
Gives You Perfect Black on White Copies of Everything in Half the Time

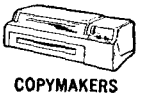
Why settle for part-time copying methods when it's so easy and fast to copy everything with an Apeco Uni-Matic Auto-Stat. You just hand any paper to this amazing new copy-maker and it hands it right back along with a clear, sharp, black on white copy. It's that easy—that fast to copy everything. Just "in and out" copies letters, invoices, receipts, charts, blueprints, bids, reports, quotations, photographs, etc.—every paper, every color—one or both sides. Every business can use the Apeco Uni-Matic Auto-Stat, and it's priced well within the budget of even the smallest firm.

SEND FOR THIS NEW **FREE BOOK!**

16 full-color pages packed with illustrations and facts that point out the many Money and Time Saving applications and advantages of Apeco Uni-Matic Auto-Stat copying. 10 minutes of reading that can save you thousands of dollars annually for your business.

Attached Air Mail Postage Paid Reply Card Will Rush Your Free Book To You




COPYMAKERS

LAMINATORS

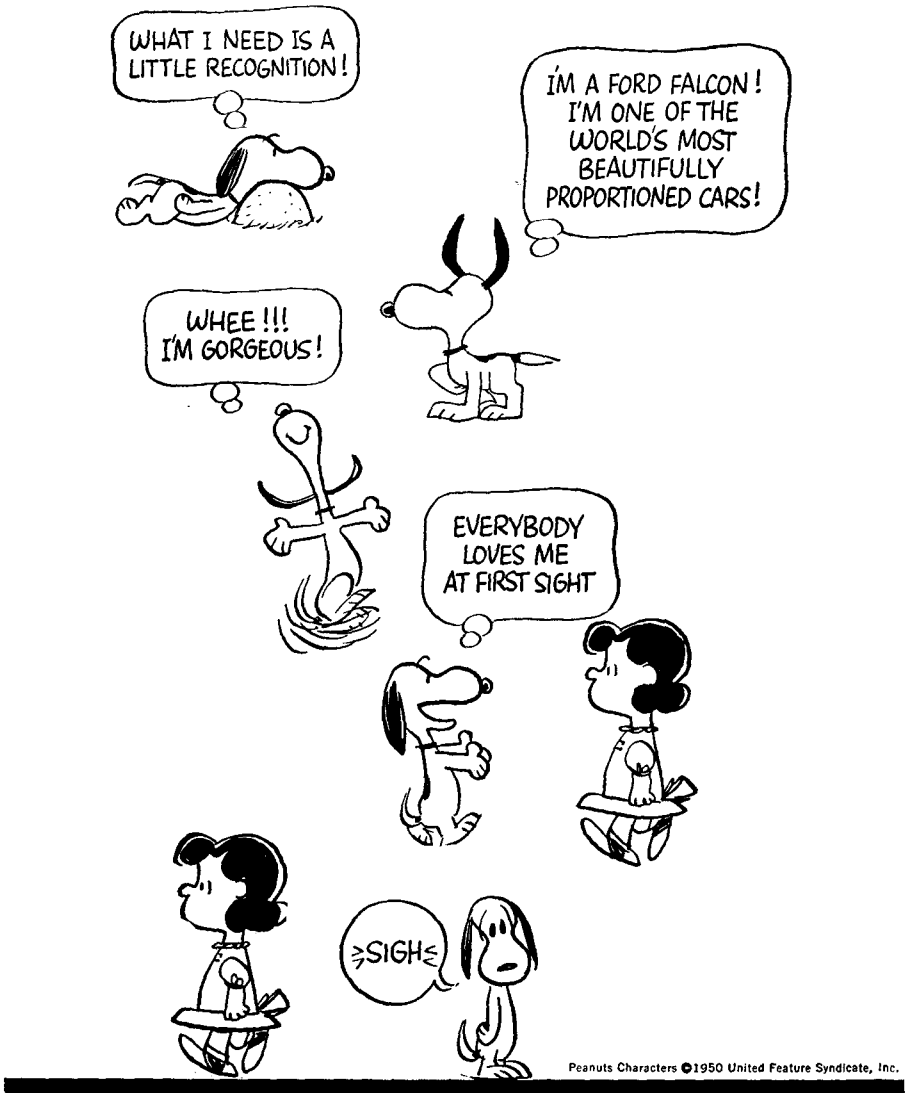
BINDERS

the future in your office today!

APĒCO | AMERICAN PHOTOCOPY EQUIPMENT COMPANY
2100 West Dempster Street • Evanston, Illinois

*APECO, APECO AUTO-STAT and UNIMATIC are trade marks of American Photocopy Equipment Company Reg. in U. S. Pat. Off.

PRODUCED 2005 BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED


WHAT I NEED IS A LITTLE RECOGNITION!
I'M A FORD FALCON! I'M ONE OF THE WORLD'S MOST BEAUTIFULLY PROPORTIONED CARS!
WHEE!!! I'M GORGEOUS!
EVERYBODY LOVES ME AT FIRST SIGHT
SIGH
Peanuts Characters ©1950 United Feature Syndicate, Inc.

Chin up, Snoopy! You really captured the spirit of that new Falcon look. So bright! So young! The Falcon sure doesn't look like America's lowest priced 6-passenger car. But it is!* It certainly doesn't look like its brand-new size can carry 6 big people . . . and all their luggage. But it can! For that matter, it doesn't look like it can get up to 30 miles a gallon . . . and better! But a fleet of Falcons have! What it does look like is a terrific buy. Which it is!

FORD DIVISION, Ford Motor Company

EASIEST CAR IN THE WORLD TO OWN

FORD Falcon

*Based upon manufacturers' suggested retail prices for 2 door sedans

Saturday Review

APRIL 2, 1960

Cover Photograph: PIX

SR/IDEAS

12 Russian Writing: A Soviet Editor's Report, by Alexander Chakovsky

24 Out in the Open: An Editorial

27 The Change of the Tide, by Peter Ritner

45 The Wonders That Await a Micro-Microscope, by Richard P. Feynman

SR/BOOKS

15 Literary Horizons: Granville Hicks considers "Clea," the concluding volume of "The Alexandria Quartet," by Lawrence Durrell

16 Trustee from the Toolroom, by Nevil Shute

17 Marriage: East and West, by David and Vera Mace

19 The Eavesdroppers, by Samuel Dash, Richard F. Schwartz, and Robert E. Knowlton

20 Love & Like, by Herbert Gold

21 Some Angry Angel, by Richard Condon

22 The Future as History, by Robert L. Heilbroner

23 Political Realism and the Crisis of World Politics, by Kenneth W. Thompson

34 39 Poems, by John Ciardi

SR/DEPARTMENTS

8 First of the Month

10 Trade Winds

17 Literary Crypt

21 Literary I.Q.

25 Letters to the Editor

26 *SR* Goes to the Movies

29 Music to My Ears

30 Booked for Travel

33 Broadway Postscript

41 *SR* Research for April

53 Kingsley Double-Crostic No. 1358

The SATURDAY REVIEW, published weekly by Saturday Review, Inc., 25 W. 45th Street, New York 36, N.Y. Harrison Smith, President; J. R. Cominsky, Publisher, Executive Vice President and Treasurer; Norman Cousins, Vice President; Nathan Cohn, Assistant Treasurer and Business Manager; Robert A. Burghardt, Advertising Director; Ray Goodman, Circulation Director; Bert Garmise, Circulation Consultant; Marion Urmy, Assistant to the Publisher. Subscription $7 a year; $8 in Canada. Member Audit Bureau of Circulations. Vol. XLIII, No. 14, April 2, 1960. Second-Class postage paid at New York, New York, and at additional mailing offices. Indexed in the "Reader's Guide to Periodical Literature." © 1960 by Saturday Review, Inc. All rights reserved under Berne and Pan-American Copyright Conventions. Reproduction in whole or in part of any article without permission is prohibited. Printed in the United States of America.

PRODUCED 2005 BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

The Sound of Genius

ROBERT CASADESUS, PIANIST
25TH YEAR IN AMERICA

BEETHOVEN: Piano Concerto No. 4 in G Major. Piano Concerto No. 1 in C Major—with the Concertgebouw Orchestra of Amsterdam, Eduard van Beinum, Conductor.
ML 5437 MS 6111 (Stereo)

BACH: Concerto in F Major ("Italian"). Toccata and Fugue in E Minor. Partita No. 2 in C Minor.
ML 5446 MS 6120 (Stereo)

CASADESUS: Nonetto in E-flat for Piano, Woodwinds and String Quartet. Sextuor in E Major for Piano, Woodwinds and French Horn.
ML 5448 MS 6121 (Stereo)

PHILADELPHIA ORCHESTRA
EUGENE ORMANDY, CONDUCTOR

(RECORDING SUPERVISED BY THE COMPOSER)
SHOSTAKOVITCH: Cello Concerto in E-flat Major—with Mstislav Rostropovich, Cellist. Symphony No. 1 in F Major.
ML 5452 MS 6124 (Stereo)

RACHMANINOFF: Symphony No. 2 in E Minor.
ML 5436 MS 6110 (Stereo)

RICHARD TUCKER, TENOR
"GREATEST TENOR IN THE WORLD"—TIME MAGAZINE

VERDI: Rigoletto (opera in three acts). With Renato Capecchi, Gianna D'Angelo, Soloists; Chorus and Orchestra of Teatro di San Carlo di Napoli; Francesco Molinari-Pradelli, Conductor.
M2L 404 M2S 901 (Stereo)

BRUNO WALTER, CONDUCTOR
SEQUEL TO HIS DEFINITIVE BEETHOVEN EDITION

BRAHMS: Symphony No. 4 in E Minor. With the Columbia Symphony Orchestra.
ML 5439 MS 6113 (Stereo)

ALBÉNIZ: Iberia (Complete), Navarra. Alicia de Larrocha, Pianist. M2L 268

BARBER: Summer Music • NIELSEN: Quintet for Winds—the Philadelphia Woodwind Ensemble. ML 5441 MS 6114

BERG: 5 Songs, Op. 4 ("The Altenberg Lieder")—with Bethany Beardslee, Soprano • WEBERN: 5 Movements for String Quartet • SCHÖNBERG: 5 Pieces for Orchestra, Op. 16. Robert Craft conducting the Columbia Symphony Orchestra ML 5428 MS 6103 (Stereo)

CHAMBER MUSIC FROM MARLBORO. BEETHOVEN: Octet in E-flat Major. Marcel Moyse conducting the Marlboro Festival Octet • DVOŘÁK: Serenade in D Minor, Louis Moyse conducting the Marlboro Woodwind Ensemble.
ML 5426 MS 6116

HAYDN: Symphony No. 45 in F-sharp Minor ("Farewell") • MOZART: Symphony No. 36 in C Major, K. 425 ("Linz"). Pablo Casals conducting the Festival Casals Orchestra of Puerto Rico. ML 5449 MS 6122 (Stereo)

PHILIPPE ENTREMONT, Pianist, plays the Four Chopin Ballades. Phillipe Entremont, Pianist.
ML 5442 MS 6118 (Stereo)

MUSIC FOR ORGAN AND BRASS: Canzonas of Gabrieli and Frescobaldi—with E. Power Biggs, Organist, and the Boston Brass Ensemble, Richard Burgin, Conductor.
ML 5443 MS 6117 (Stereo)

ARIAS, ANTHEMS AND CHORALES OF THE AMERICAN MORAVIANS, Vol. I. Moravian Festival Chorus and Orchestra, Thor Johnson, Conductor. ML 5427 MS 6102

Columbia Records

"COLUMBIA," "MASTERWORKS," ® MARCAS REG.
A DIVISION OF COLUMBIA BROADCASTING SYSTEM, INC.

PRODUCED 2005 BY UNIVERSAL
ELECTRONIC REPRODUCTION PROHIBITED

June 1, 1960
is the closing date for the

HARPER
$10,000
Prize Novel Contest

Any unpublished novel in the English language is eligible. No entry form is needed. But each manuscript must be accompanied by a letter stating that it is submitted for the Contest and has never been published in book form. The contest opened June 1, 1959, and will close June 1, 1960. In order to be eligible, a manuscript must be received in the offices of the publishers by the end of the business day on the closing date.

The Judges:

SAUL BELLOW
Author of
Henderson the Rain King,
The Adventures of Augie March, etc.

JOHN K. HUTCHENS
Daily Book Critic for the
New York *Herald Tribune*

EUDORA WELTY
Author of
The Ponder Heart,
Delta Wedding, etc.

Send manuscripts or write to:
The Harper Prize Novel Contest
HARPER & BROTHERS
49 East 33rd St., New York 16, N. Y.

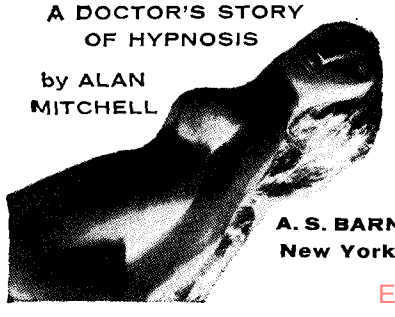
The astonishing adventures of a doctor who used hypnotism as a medical tool

Filled with dramatic case histories, this completely absorbing book is one doctor's personal story of his own training in hypnosis, of his successes and failures, and of his growing wonder over the healing power of hypnosis. $3.95

The Healing Trance

A DOCTOR'S STORY OF HYPNOSIS

by ALAN MITCHELL



A. S. BARNES
New York 16

FIRST OF THE MONTH

By Cleveland Amory

THE WINDS of March were not only on winter's traces but they were also all over the country—from the filibuster in the Senate to the strike in Hollywood. In the latter matter, of course, the public was extremely well informed, and in no time at all every cab driver could tell you the most complex details about "residuals," "domestic re-runs" and post-1948 TV, not to mention the exact position of Ronald Reagan, John Wayne, and Hedda Hopper. On the other matter, however, in between the lions of the Senate filibuster, it soon became clear that almost nobody knew what it was all about. Or, for that matter, what started it. For a while we thought there ought to be some power—like a firm President, for instance—who would step in and *make* them vote, but we soon perished the thought when we realized that what they had to vote on, after all, was who, to begin with, *can* vote. The idea, in a democracy, of letting *everybody* vote is obviously, in an election year unthinkable.

• • •

One thing became crystal clear during the month: the handsome Boston Strong Boy No. 2 (the late John L. Sullivan was No. 1) was just about propelled into the Democratic nomination by the curious charges of the Republican governor of New Hampshire that he was "soft" on Communism. Somehow we had the feeling that if Senator Kennedy does get the nomination and if the religious issue is used with equal recklessness by his opponents, we just might have President Kennedy. In Connecticut some years ago, one of the candidates for governor was Abraham Ribicoff. The religious issue came up—and Ribicoff won by a landslide. Altogether, country-wide as well as state-wide, we have a good deal of faith—particularly where faith is concerned—in the American sense of fair play.

• • •

Wanting to see both sides—although these days you're lucky if you get even one whole side—we attended a dinner in New York for Senator Hubert Humphrey, and we found him the most dynamic Democrat we've met yet—and also the most democratic. "The press of this nation," he told us, "wants to select the candidate for the Democratic Party. I'm not complaining—it's just a fact. But I'm going to win in Wisconsin on April 5—you can bet on it. I've never been up against such a formidable array of public relations in my life. But no Democrat is going to be able to win by being merchandized. The Democrats are only going to win with substance."

• • •

Among the personals, the news was all Antony Armstrong-Jones. In England, they're calling him the Emperor Jones. Over there, too, another hyphenated man, Patrick Montague-Smith, assistant editor of Debrett's, helpfully declared that Antony was a direct descendant of Edward I. And, after this, one American radio reporter got so far into the spirit of the thing that he announced breathlessly that Mr. Armstrong-Jones had been advised not to see any of his old friends "for the time being."

• • •

One Monday night we were sitting minding our own business when up on the TV screen, big as tape, appeared—for the first time on any New York station—a bullfight. Not one bullfight, either, but three of them, over Station WNEW-TV, and narrated by a Mexican bullfight critic named Carlos Montalban, brother of actor Ricardo. They were brave all right—the station people, we mean; not, of course, the bulls, who were as usual, about the size of large poodles—and about as ferocious. As anyone who has ever seen a bullfight—particularly in Mexico—knows by now, the "sport," or "art," as it is called in *Life* and the fashion magazines, is so dangerous that an American debutante can—and frequently does—do it a good deal better than some of most "chic" matadors. At the station they told us that they were prepared for criticism and put three people on the phones. They needed them, too. Although the show had a high rating (comparable to "Maverick") every single call that came in during the fight was, the station admitted, violently opposed. Afterwards, though, the station claimed the calls were more favorable—and so was the mail. "After all, what's the difference?" one young man at the station told us. My seven-year-old turned on "Lassie" on Sunday night, and what do you think he saw—a cockfight! On 'Lassie,' for God's sake!"

PROTECTED BY COPYRIGHT LAW
ELECTRONIC REPRODUCTION PROHIBITED

"EARN"

did not always mean the same as "GET"

"The more you get, the more you can spend. And this will bring prosperity."

So goes the thinking in many a public expression during the last few years.

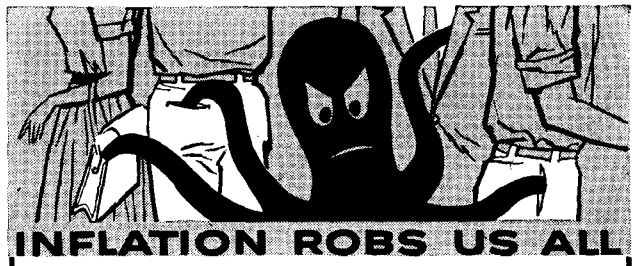
But merely getting more wages, without producing more goods, does not bring prosperity. It brings inflation.

To earn more, a man should produce more: by producing more, he earns more. This is simple, old-fashioned logic and old-fashioned morality.

The gimme, gimme, gimme demand every year without reference to earning causes inflation. And inflation can rob us all of the prosperous business promised in the Golden Sixties, because inflation dissipates, destroys savings.

REPUBLIC STEEL

CLEVELAND 1, OHIO



INFLATION ROBS US ALL

New products which reduce costs and give the customer more for his money are the soundest means of increasing purchasing power without creating inflation.

Among the many products Republic Steel has developed for residential construction are hollow metal doors. These doors can't warp, swell, or shrink. Moisture and temperature changes cannot affect them. They are engineered to fit right, close tight, open and close smoothly, silently. They're easy to paint to harmonize with interior decorations.

The component includes complete frame, door, and hardware. Installation is fast. Each door is factory-fitted to eliminate cutting and planing on the job. Requires no maintenance call-back expense. Steel doors add lasting value at low over-all cost to any home. Ask your builder about Truscon Steel Doors, built by Republic's Truscon Division.

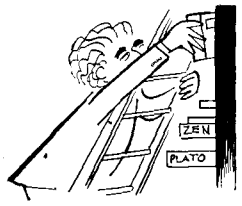
PRODUCED 2005 BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

TRADE Winds

AT APPROXIMATELY two o'clock on the afternoon of March 15 the prime minister was climbing up the ladder to the topmost shelf of the Stechert-Hafner bookstore on East Tenth Street, New York. There he reached out for a distant, obscure volume that he had his eye on. I don't know its title, but it was one of about forty books that David Ben-Gurion picked up that day in a remarkable tour of New York's bookstores, made during his nine-day visit to this country.

The sight of a prime minister browsing through the shelves is enough to gladden the heart of any bookseller. Having him purchase more than $150 worth of books is enough to set back browsing a couple of centuries. (According to the definition, browsers leaf through, never buy.) He ordered these at the place mentioned above and at Brentano's Fifth Avenue store. He had them delivered to his suite at the Waldorf-Astoria and the bill sent to the Israeli Consulate. (It's okay; the tab will be deducted from his salary when he returns home.)

Since there are more bookstores in Israel, per capita, than in almost any other country, especially ours, why does the P. M. buy them in New York? Well, he has rather specialized tastes. He wanted "Ibn Khaldun's Philosophy of History," by Munshin Mahdi, for example, and Dodd's "Plato's Gorgias"



and Tolman's "Purposive Behavior in Man and Animals." And Mr. Ben-Gurion was after orientalism, Greek philosophy, existentialism, and Zen Buddhism. Furthermore, he reads ancient Greek, as well as English and French.

That's why he climbs ladders in New York, I guess, rather than poking around the drugstores and bookstores of Tel Aviv.

JULIET LOWELL is at it again, collecting those hilarious letters. Her new book, "Dear Folks" (Putnam's), consists of correspondence from small fry to teachers, parents, Santa, and so on. Kids writing home from camp, for example, are priceless. Here's one that a youngster named Kent Bernard penned: "Dear Mom. I got your phone call. Love, Kent."

A FELLOW NAMED John Aldridge has let himself in for a peck of trouble by writing a novel. It's called "The Party at Cranton," and McKay will bring it out in a couple of weeks.

The reason the professor is in for trouble at the age of thirty-seven is that he has spent a lot of his time in the last few years in books, articles, and reviews riding the heck out of the novels and novelists of our day, and in essays and lectures telling everybody how to write. He has made them mad, too.

Now he's gone and written one himself, his first novel, and an unusual one it is. For example, it's the first novel I've read in which there is no dialogue. Apparently the whole thing takes place within one guy's head at a cocktail party.

Aldridge is sitting it out as writer-in-residence at a fancy Virginia college called Hollins. The literary world, having heard plenty from Aldridge over the years, now has a chance to talk back. I wonder what kind of party it's going to be.

AT THE University of Pittsburgh they have just opened a Book Center that's probably the finest thing of its kind in the country. It's a two-story, air-conditioned building in the middle of the dormitory area, and it offers students the most amazing array of services you're likely to find on any campus.

The central area of the main floor is devoted to newly published books of general interest, both hardcover and paperback. More than 3,000 paperbacks are displayed full face, arranged by publishing house. There is a Fine Book Room with a brick fireplace, leather-upholstered chairs, and walnut paneling where rare books are kept, and where there is also the largest display of university press books found in any store in the nation.

On the same floor there is a section that carries books on the fine arts, reproductions of paintings and other prints, sculpture, and other art objects. The Book Center's special services department will search for out-of-print books and take orders for foreign-

IMPORTED BY NATIONAL DISTILLERS PRODUCTS COMPANY, NEW YORK. SOLE U. S. DISTRIBUTORS • BLENDED SCOTCH WHISKY. 86.8 PROOF.

THE LIGHTER SCOTCH... WITH GENUINE HIGHLAND CHARACTER

Lighter, drier and smoother, VAT 69 combines all three classic qualities that distinguish a Scotch of genuine Highland character.

ONE SCOTCH STANDS OUT... in its slimmer, trimmer bottle

PRODUCED 2005 BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

language books, back issues of periodicals, and books not in inventory.

The Book Center provides a record section with private listening booths, engineering and art supplies, and a photographic department where visual aid equipment, slides, film strips, and related items can be obtained.

The textbook and reference department on the lower floor has a capacity of 50,000 volumes. The books are in stacks, arranged according to the school and departmental divisions of the university. That is, a student will find together the books required or recommended in each of his courses. All items in the Book Center have the price marked. It's self-service, and you pay at a check-out counter at the main entrance.

IDDZIES AND ODDZIES: "Inside Marriage" (Evergreen) is the best thing yet done by Tomi Ungerer, that talented Alsatian-American artist-writer.

► Overheard: "If he were alive he'd be a mighty sick man."

► The Society of American Historians has awarded the $500 Francis Parkman Prize for 1959 to Matthew Josephson for his book "Edison: A Biography" (McGraw-Hill).

► Two people, Mrs. M. H. Winton and Digby Butler Whitman, have separately informed me about a sign in the Township of Greenburgh, New York. It reads: NO LITTERING PUNISHABLE BY FINE. Mr. Whitman says there's another good one in Amesbury, Massachusetts: NO DUMPING SELECTMEN.

► The Eberhard Faber Toy and Game Company will soon put out a Junior Executive desk set for kids which contains a desk blotter, calendar, pens, pencils, petty cash vouchers, checkbook, and one "Eater's Club" credit card. —JEROME BEATTY, JR.

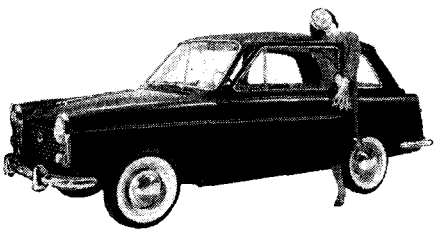
SOLUTION OF LAST WEEK'S KINGSLEY DOUBLE-CROSTIC (NO. 1357)

ELAINE B. SUSS:
BEST FACE FORWARD

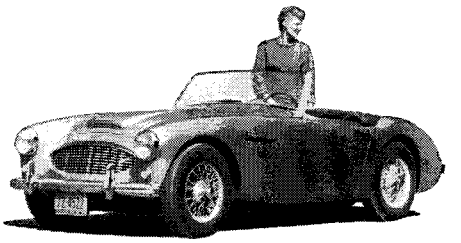
From the gnomes of generations
Told in various translations—
Beware of pastures that seem greener
than your own. . . .

It is no wonder that we find
A less enchanting face behind—
The moon was clever to have kept
that side unknown.

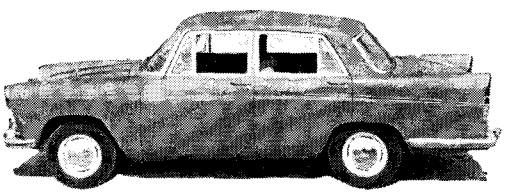
Best way in the world to see Europe...in your AUSTIN



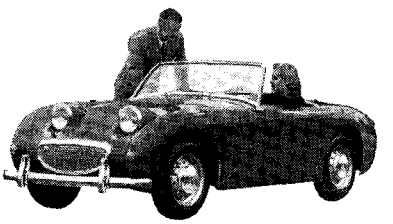
THE AUSTIN A-40
Smart-looking, 40 mpg.
As low as $1346*



THE AUSTIN HEALEY '3000'
*Magnificent 2 or 4 seater sports car. As low as $2372**



THE AUSTIN A-55
Ideal family car, better than 30 mpg. *As low as $1656**



THE AUSTIN HEALEY SPRITE
The lowest-priced *true* sports car. *As low as $1323**

After you've seen the big cities, take off down the side roads. Enjoy the excitement of out-of-the-way places. Discover for yourself the Europe so few travelers see. And do it in your own car.

It's easy. You order your Austin from any BMC dealer in the United States. **Take delivery abroad anywhere.** And at big savings too. Full 12-month BMC factory guarantee. Prompt, expert BMC service wherever you go. Your car will be shipped home anywhere in the U. S. without any bother to you.

Products of **THE BRITISH MOTOR CORPORATION, LTD.**, makers of Austin Healey, Austin, MG, Magnette, Morris and Riley cars. Represented in the United States by HAMBRO AUTOMOTIVE CORPORATION, 27 West 57th St., New York 19, N. Y. Sold and serviced in North America by over 1000 distributors and dealers.

*Delivered in England

FREE!
Mail this coupon today!

Hambro Automotive Corporation
Dept. 42, 27 West 57th St., New York 19, N. Y.
Please send International Delivery Information Booklet, mileage charts of Europe and name of nearest BMC dealer to:

NAME_____
STREET_____
CITY_____ STATE_____

PRODUCED 2005 BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Saturday Review
APRIL 2, 1960

RUSSIAN WRITING:

A Soviet Editor's Report

By ALEXANDER CHAKOVSKY

EDITOR'S NOTE: *Last summer, the editor of Saturday Review was in the Soviet Union under the cultural exchange agreement between the United States and the USSR. While in Moscow, he was a guest at a staff meeting of Foreign Literature, one of the leading literary publications in the Soviet Union. During the course of the discussion, SR's editor proposed that both the Saturday Review and Foreign Literature debate outstanding questions—cultural, political, ideological—between the two countries. A list of topics would be agreed upon; each magazine would then provide space for the simultaneous publication of the opposing articles.*

Mr. Alexander Chakovsky, the editor of Foreign Literature, called for a more modest approach. The ensuing discussion established the fact that SR's editor was not entirely happy about the knowledge of American writing in the Soviet Union, and that Mr. Chakovsky was even unhappier about the knowledge of Soviet writing in America. This led to the following arrangement: Foreign Literature would supply SR with an article on Soviet literature which we would publish without editing. In return, SR would have equal space in Foreign Literature for an article it would prepare on American writing.

The accompanying article is the first step in that agreement. Mr. Harrison Smith, associate editor of SR, is writing the article on American literature for the Soviet journal. —*N.C.*

IN THE SOVIET UNION, foreign literature is printed in editions running into hundreds of thousands and millions of copies. Even in the "deep freeze" years of the cold war our magazines and publishing houses did not, or virtually did not, reduce the printings of translations of Western belles-lettres.

We cannot approach the publication of foreign literature from a purely utilitarian, political angle as is done in certain Western countries. We regard this as something constant: translations of foreign literature are a great factor linking nations and helping them to enrich one another spiritually and promoting reciprocal spiritual enrichment. I do not mean to say by this that we are indifferent to the contents of the books we translate. Our reader is fond of and often prefers books that are close to him in ideological and spiritual content. Our sentiments and way of thinking best accept books describing the life of the people, books dealing with social conflicts and the peoples' efforts to create a better future. Naturally, therefore, such books are more readily printed by our publishing houses, But preference does not imply discrimination. Therefore, here we have been publishing and still do publish foreign writers who stand on the sidelines so far as social struggle is concerned or adhere to political views opposite to ours. Nevertheless, their subjective honesty and talent enable them to write books that truthfully describe certain phases of the life of their country and people.

That is why we have been printing and reprinting such American authors as Hemingway, Steinbeck, Caldwell, Saroyan, and Arthur Miller and such writers as Mauriac, Moravia, Greene, Böll, and Remarque, in addition to the recently published representatives of Britain's Angry Young Men, and many, many others. In 1958-59 alone 54,000,000 copies of books by foreign authors were published in the Soviet Union. But this is not all. Such magazines as *Inostrannaya Literatura,* with a circulation of 70,000, and other literary magazines and papers whose combined circulation runs to about a million copies, systematically carry articles and literary works, résumés and reviews of modern books published abroad, and the works themselves. Moreover, in the big Literary News section of *Inostrannaya Literatura* we reprint the reviews contained in publications abroad of the latest books which we ourselves have not yet managed to read.

This is the general pattern of things here. However, it would be sheer immodesty to deny possible shortcomings and blunders made by us in presenting translations of foreign literature to the public.

Can it be said that contemporary Soviet literature is printed in a like manner in the West, and in the

PRODUCED 2005 BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

United States in particular? We think not. Can the average American intellectual or, more than that, any intellectual nurtured by the world of the arts name ten modern Soviet books read in recent years? We think not. Is it because the American reader is indifferent and apathetic? To say so would be to slander the American reader. The reasons are that the Americans are deprived of the opportunity of reading Soviet books in their own language and that American publishers are downright tendentious in selecting Soviet books for translation. What is more, as a rule the only modern works that are widely printed and popularized in your country are books like "Doctor Zhivago," which can serve as subject matter for vicious attacks on our social system.

These are dismal conclusions to come to, but they must be arrived at if we are to be honest and truthful.

In this connection I should like to say a few words about the biases and prejudices about Soviet literature current in the West. I speak not of people actively hostile to our country and who are against our literature merely because it is Soviet. Let them be, these modern Brontosauruses, whose prehistoric ancestors died out, as a West German cartoonist aptly put it, because they had "too much armor and too little brains." I should like to speak of those people who would like to make an objective appraisal of our literature and judge for themselves. But how can they do so in view of what has been said above?

Their possibilities are next to nil. They are told that Soviet literature is crudely tendentious and written on the Kremlin's orders, that Soviet literature does not deal with people and does not describe their spiritual upheavals or their psychology; that all it revolves around is production, factories, and machines.

HOW can Western readers counter these claims, and American readers in particular? How can they have their own opinion if they are deprived of all opinion-forming possibilities?

Now, just what are these Soviet belles-lettres that the enemies of the world's first workers' state either deny entirely, or bemoan and damn? What are their main features? What is typical of the hundreds of books written on different subjects, in different literary styles, and with varying forcefulness? What do they have in common?

It is difficult to reply to this question without falling into a certain schematism. Yet the job facing me—squeezing a description of Soviet literature as a whole into a few magazine pages—predetermines imperfection of description.

Most Soviet writers maintain that the purposes of belles-lettres are not only to bring esthetic pleasure to the reader, not only to disclose the numerous ways of the human soul, but to foster the formation of human character, to educate and inculcate in people lofty moral traits.

I do not wish to iron out contradictions. It is a fact that Soviet writers and certain Western writers and critics stand in different positions in their approach to literature.

Our opponents abhor the very thought of educative significance in literature. They speculatively liken this conception to didactics and regimentation. We could argue this point separately. At present, however, I ask readers to accept the premise that we Soviet writers believe that literature cannot remain indifferent to whether or not the individual grows up to be honest, brave, and a creative thinker, or an adventurer, a coward, and a stick-in-the-mud conservative. We cannot merely stand by and state passively and elegiacally that the world is made up of citizens, patriots, fighters for the truth, builders and splitters, traitors, liars, and wreckers. We want to see more of the former and nothing of the latter.

Certain people in the West regard the problem of educating man from a primitive, bookish point of view and maintain that education should be left to the schoolteacher exclusively; that belles-lettres should in no way be related to education. As a matter of fact, they claim belles-lettres might even nullify the efforts made by the teachers, by developing the basest instincts stemming from misconceived ideas of freedom and democracy.

WE reject this attitude and continue to adhere to our point of view.

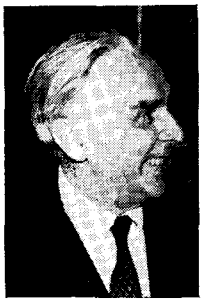
Of course, as I have already mentioned, education may be understood primitively. Didactical talking-down-one's-nose to the reader is the enemy of belles-lettres. A book in which the author bluntly tries to persuade the reader in so many words to be good usually makes dull reading and cannot be classified under belles-lettres.

I should like you to read, to begin with, four Soviet books: "The Young Guard," by A. Fadeyev, "Companions," by V. Panova, "The Star," by E. Kazakevich, and "In the Trenches of Stalingrad," by V. Nekrasov so that what I say assumes concrete form. These are not new books. They appeared just after the war. The authors differ in artistic treatment, and the books themselves differ in plot, in handling of detail, events, and language. In a word, these are very different books.

"The Young Guard," which is written in epic form, is about a group of Soviet young people who remain on territory occupied by the Hitlerites (in the southern city of Krasnodon) and

Faces in Modern Soviet Fiction

V. Panova



K. Fedin

L. Leonov

G. Nikolayeva

A. Fadeyev

V. Dudintsev

E. Kazakevich

—Sovfoto.

PRODUCED 2005 BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

decide to continue fighting the enemy. You will not find any didactic speeches in this book, any declarations or popular presentation of the idea that man must defend his country. This book is a skein of passions, emotions, tortuous deliberation, rash steps, the tingle of young love, the tragic collision of brute force and dedicated conviction, love for one's country, a heroic readiness to sacrifice one's young life for what one holds to be most sacred, and the bitter reluctance to part with life.

After reading this book, read "Companions," by V. Panova. At first it will seem like a book meant for tame fireside reading. The action takes place in an army hospital train. There are no turbulent emotions, no overtones. The book delves deeply into the psychology of human beings. Two different characters come into conflict, two different approaches to life, to the problem of love and honor, to ordinary, everyday situations. As you read on and on you find tremendous thought underlying the cryptic and seemingly insignificant dialogues between these ordinary and simple people.

"The Star," by E. Kazakevich, is a very small book. It deals with a few days in the life of front-line Soviet Army scouts. There are no battles or the thunder of cannon which are inevitable and very much in place in the epic canvases that are painted of war. Love stands in the foreground in this wonderful story, love which is born and blossoms in an unusual background of war under constant menace of death. A young officer goes on a scouting mission, during which he perishes. The call signal of his radio—"Star calling. . . . Star calling. . ."—can no longer be heard. The girl who loves him sits at her receiver trying to pick his signals out of oppressive silence, but in vain. That actually is the entire story. Yet hardly a reader will close this book without experiencing a profound surge of inner feeling, without sentiments of gratitude to the author for having succeeded in just a few dozen pages in painting a canvas of a great love that triumphs despite everything.

V. Nekrasov's book "In the Trenches of Stalingrad" in no way resembles the three previous titles mentioned. It describes the grim and difficult life of a soldier. I think that this book shows a trace of Western influence and primarily the influence of Hemingway, whom the author holds in high esteem and to whom he dedicated a story recently printed in the Literary Gazette (*Literaturnaya Gazeta*).

In Nekrasov's novel at times one detects a deliberate earthiness, a fear of bombastic expression and extreme concreteness of description. The story by V. Nekrasov may seem to enter into direct literary polemics with the book by E. Kazakevich, although the two authors are not on opposite sides of any fence of principle.

Here you have four books about the war.

But I forgot that you are unable to read three of them since they have not been published in America.

But perhaps they are not typical of Soviet literature? Perhaps they passed unnoticed by the public? Or maybe they are the exception? No, these books have been published in editions running into hundreds of thousands of copies. And all of them have received high literary awards.

HAVE you ever read the works of such prominent writers of the older generation as K. Fedin and L. Leonov? Professor Simmons of the United States made a critical study of these authors and of M. Sholokhov, but it is our contention that his assessment is incorrect. But how can you be objective judges in this dispute if there is no possibility of your reading the recent works of Fedin and Leonov? I have in mind Fedin's "First Joys" and "Unusual Summer," and Leonov's "Russian Forest," which was written earlier. These are books by big masters of the written word who continue the great tradition of Russian classical literature. K. Fedin's books deal with pre-Revolutionary Russia and the Revolution. L. Leonov's novel is a major kaleidoscopic work, the action of which takes place in the postwar years and hinges on the intelligentsia.

Incidentally, the two books by Fedin and Leonov's novel merited the highest literary prizes in the Soviet Union. K. Fedin won the Stalin prize and L. Leonov the Lenin prize, although Professor Simmons claims that the two are opposition-minded and against Soviet reality and that their books are permeated with warm feelings for pre-Revolutionary Russia (a claim we believe to be absolutely unfounded).

Is anything known in the United States about V. Kochetov's novel, "The Zhurbin Family," which is a novel about Soviet workers? Is anything known about the delightful miniature descriptions of the Russian landscape by Prishvin? These are works that are simply astounding in their artistic perspicaciousness. Is anything known about the epic novel by the Ukrainian writer Stelmach, "Human Blood Is Not Water," or the interesting psychological stories by Sergei Antonov? And I mention here only works of prose. Limitations of space prevent me from discussing either poetry or plays.

When I assert that in the vast and manifold Soviet literature there are dozens of books that dig deeply, not only into social problems, but into questions of psychology, love, and the entire gamut of human emotion, I am not implying that I do not see the weak books, the schematic books, books in which "production" and "machines" outshadow people.

However, I should like you to take a serious, historical approach, to discard all biases conditioned by propaganda.

Let me approach the issue in a somewhat roundabout way. Our literature is being built up on the background of an intense effort on the part of all of society to establish a new social formation—Communism. We want to create a world in which we might attain full satisfaction of the material and spiritual requirements of all members of our society. This cannot be achieved by speeches or good intentions, and of course not by war in any case, since this would mean the destruction of everything that has been created with such difficulty by us.

How can abundance be reached? Only by creating and building. This is a difficult road, demanding tremendous concentration of both physical and moral energies. There is probably not a man in the world who will deny that we have made good progress in this direction. Is it not natural and quite in the order of things that the literature of a people who consider work—creation and building—to be their major occupations to reflect this life of the people to one extent or another?

LET us stop and think: have any big social changes in the history of mankind ever passed without leaving their mark on literature? Then why is it so surprising that the most significant and unprecedented social change in the history of mankind, which took root in the October Revolution of 1917 in Russia, should still be actively reflected in Soviet books? And can it not be considered natural that in the USSR—with its more than 4,000 professional writers of varying talent, each knowing life to a different degree, each possessing different ability for social and psychological analysis—there should be books which reflect the main thing in the life of the Soviet people without sufficiently penetrating into human nature? But can it be speculatively asserted on this ground that *all* our literature is schematic and permeated with "production" through and through? What would you say of the critic who made the assertion—stemming from the obvious fact that hundreds of books are published in the United States playing up crime, murder, sexual depravity, war

(*Continued on page* 36)

PRODUCED 2005 BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

LITERARY HORIZONS

Crown for a Majestic Work

By Granville Hicks

IN A note at the beginning of "**Clea**" (Dutton, $3.95) Lawrence Durrell writes, "This is the fourth volume of a group of novels intended to be judged as a single work." And that is how the reviewer must look at it, as part of the whole that Durrell now calls "The Alexandria Quartet." Taken by itself, I am sure "Clea" can give great pleasure for the richness of its prose and the subtlety of its insights. But it was not meant to be taken by itself, and it will give triple pleasure to those who come to it after reading "Justine," "Balthazar," and "Mountolive." "The Alexandria Quartet" is one of the major achievements of fiction in our time, distinguished not only by its power of language, by its evocation of a place, by its creation of character, by the drama of many of its incidents, but also by its boldly original design. "Clea" perfects the work, as a spire crowns a cathedral, but the spire is not to be judged in isolation.

In the second volume, "Balthazar," Durrell gives a rough indication of his method. "Three sides of space and one of time" he writes, "constitute the soup-mix recipe of a continuum. The four novels follow this pattern." The first three he describes as siblings because one does not follow another in time in the manner of sequels. "They interlap, interweave, in a purely spatial relation. Time is stayed." In "Balthazar," indeed, the narrator (whose name we eventually discover is Darley) simply retells the story he has related in "Justine," but retells it in such a way that it becomes a new story. Then comes "Mountolive," written in the third person, an objective account of the public and private life of a British diplomat, with Darley only a minor figure. And finally in "Clea" we have what Durrell calls "a true sequel," for time now brings its revelations.

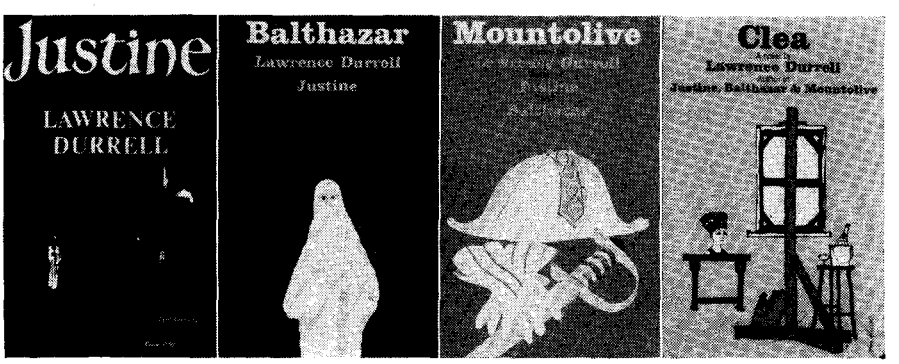
Everyone who has written about the books has commented on the magic with which Durrell has evoked Alexandria. It lives in the mind of the reader as do few cities that novelists have written about. He evokes the city not for the sake of giving his books an exotic setting but in order to create in us a mood that will accept what he has to say. The proclaimed theme of the "Quartet" is love, and mysterious indeed are the manifestations Durrell sets before us. Darley, the narrator, a schoolteacher and a writer of sorts, loves Melissa, Justine, and Clea. Justine loves not Darley but Pursewarden, a novelist of some reputation, who does not love her at all. She also, at times, and in her fashion, loves her husband, Nessim, a man of wealth and power in the city. Nessim has a child by Melissa. Mountolive has loved Leila, who is the mother of Nessim and the harelipped Narouz. Narouz loves Clea, who shudders at his ugliness. Clea once loved Justine.

We read about these characters and their loves in the first three books. Now Darley, who has been living on an island off Greece with the child of Nessim and Melissa, is summoned back to Alexandria, and he sees the city first in an air raid, for the Second World War has begun. He visits Justine and Nessim, under house arrest because of the political machinations described in "Mountolive," and discovers that his disenchantment with Justine is complete. He sees Balthazar, who has been plunged into scandal and is emerging from his disgrace. And at last he finds Clea, who, through his long exile, has come to seem the fixed point in his Alexandrian life. She acquaints him with the ironic circumstances by which rascally old Scobie has become a Moslem holy man, and together they encounter other evidences of the changes the years have brought.

The idyllic love affair of Clea and Darley is only one theme among many. Pursewarden, the novelist whose suicide was casually noticed in "Justine," has become more and more important in the "Quartet," and now assumes posthumously a major role. Darley, reading a section of his notebook, learns something about himself and Justine, and, more importantly, sees into the mind of Pursewarden, for this is a rich and wonderful discourse on the nature of art. Darley talks with Pursewarden's sister, Liza, whom Mountolive loves, and, after telling him of the relationship that existed between her and her brother, she gives him the letters Pursewarden wrote her. The quality of these is suggested by Darley in an electric passage, but he advises Liza to follow Pursewarden's request, and together they burn the letters. Meanwhile the affair with Clea has grown less idyllic, and then there is her horrifying accident. But the end holds a promise of reconciliation.

The "Quartet" is more fascinating than a mystery story, for we are always left asking what *really* happened. Pursewarden's suicide, announced in "Justine," is explained in "Mountolive" but re-explained in "Clea." Capodistria, whose murder is one of the dramatic moments of the first volume, is cheerfully alive in the fourth. We think we know what happened to Justine's child by her first husband, and then we wonder. There is mystery after mystery, but never for mystery's sake. Mystification is one of the principal strategies by which Durrell communicates his sense of relativity. There are truths in abundance, but there is no truth.

The "Quartet" is a disquieting work, and it was meant to be. A brilliant technical experiment, it is no gratuitous exercise. "A novel," Pursewarden has said, "should be an act of divination by entrails, not a careful record of a game of pat-ball on some vicarage lawn." The varieties of love, so luxuriantly displayed in the "Quartet," are not merely interesting; they are important. Like D. H. Lawrence, who appears to be the only novelist he admires, Pursewarden has an apocalyptic vision of the possibilities of life, and it is to something of the sort that Darley-Durrell aspires. Durrell's work, which has so extraordinary a power to involve the reader, seeks not merely to beguile but also to change him. "Should literature be a path-finder or a bromide? Decide! Decide!" That is what Pursewarden wanted to say to Darley. The decision, it is now clear, has been made.



PRODUCED 2005 BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Last Tale of a Skilled Storyteller

"Trustee from the Toolroom," by Nevil Shute *(Morrow. 311 pp. $3.95), the author's posthumous novel, records with his customary skill a tale of a penniless Englishman on the trail of sunken treasure. Literary critic Edmund Fuller is the author of "Man in Modern Fiction."*

By Edmund Fuller

NEVIL SHUTE will be missed. He was one of our most prolific and diversified storytellers. His twenty novels varied widely in tone and pace, as well as in scene, and time, ranging from his own Australia, where he lowered the curtain on the human race, to England and America, and from a little into the future back to the Vikings. In his autobiography, "Slide Rule," a few years ago, he let us look directly upon the face of the skilled aircraft engineer who shared an identity with the novelist.

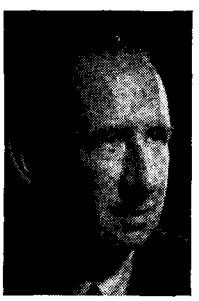
Sometimes it was the special knowledge of the engineer that created either the basic concept or the texture of a story. It is partly so in "Trustee from the Toolroom." It was perhaps most true of one of Shute's greatest successes, "No Highway," that tense story of a transatlantic plane among whose passengers is an engineer who knows that metal fatigue may cause the break-up of the craft before it can touch down at Gander. At a far remove is another of his best, "Pied Piper," the delightful and exciting story of the successful spiriting of a group of children from enemy-held territory in wartime.

Shute has not been regarded, and will not be, as a weighty writer, a major literary figure. Primarily he sought to entertain us. His hardest-hitting book, beyond any doubt his best, is "On the Beach." Let experts dispute about its scientific plausibility: this understated, stoical vision of one mode of mankind's possible destruction of itself had a public impact that little other cautionary fiction can boast.

THE present posthumously published novel, "Trustee from the Toolroom," is in Shute's most characteristic vein. It is sentimental but safely short of repulsiveness, celebrating a self-reliance that asks few favors and ends by having large favors thrust upon it. It is a fable, a happy story in which virtues are handsomely rewarded, in which one form or another of magic carpet transports the hero where he must go: airplanes, the crude but seaworthy boat of a rough diamond, a millionaire's yacht. All these contrivances are acceptable because Mr. Shute does not seek to disguise or hide them but offers them as what they are, with skill and charm. There is less suspense than many of his books have given us. We know he is going to end this one happily, and are content to tag along at a leisurely rate and see the ingenious ways by which he works things out.

Keith Stewart, his hero, is perilously close to the cliché of the good little man. But he is not quite the commonplace hero, for his talents and his determination, alike, are exceptional. This diffident Englishman is a former toolroom worker who now devotes all his time to writing and illustrating articles for a magazine called the *Miniature Mechanic*, explaining how to make minute working models of sundry motors, from beam engines to jet engines, clocks, pumps, carillons, and the like. In his workshop Stewart fashions all these things and many others. He makes a slender living and has correspondence from many countries. He is a man "content to go along upon a miserable salary for the sake of doing the work he loved."

His sister and brother-in-law, the latter a retired naval officer, died in the wreck of their Bermudian cutter, *Shearwater IV*, on a Pacific coral reef. Keith is trustee and guardian of their small daughter. He knows that their entire estate, some £27,000 put into diamonds for spiriting away from England's restrictions on the removal of currency, is in that wreck, and he knows it is his duty to recover it. How he does so without financial means or



Nevil Shute

On January 12 of this year Nevil Shute died. For more than half of his sixty years he had been England's best-selling novelist. The combined sales of his books far exceeded that of any of his contemporaries. Through such novels as "Pied Piper," "Pastoral," and "The Chequer Board," he became a favorite in America as well.

But there was another Nevil Shute who in fact preceded the novelist. Born Nevil Shute Norway in 1899, he did not write his first novel until 1926. Before that he was an aeronautical engineer, worked for De Haviland on the famed R100 dirigible, and later on, even after he began to write novels, founded his own airplane factory. His knowledge of what new weapons would do led him to present realistically in his 1938 novel, "Ordeal," the effect of enemy bombing, a grim prophecy that was soon to prove true. During World War II Shute again put his technical knowhow at the service of the government. As a lieutenant-commander in the Admiralty he worked on highly classified weapon research and before the war ended had himself invented a device used to detect enemy aircraft.

But after the war Shute, apparently tired of it all, left England and "the sniff of decay" and emigrated with his wife and two daughters to a bucolic dairy farm in Australia. He was not, however, a man who could retire from the fray. In 1957 he wrote the book for which he is now best known, "On the Beach." Despite dour predictions that the subject matter was too grim, the novel in its hard and paper editions has sold more than two million copies. The Stanley Kramer film, made from the book, is now being shown to capacity audiences in seventeen countries. This yawp against man's barbaric tendencies toward self-destruction was, in the writings of a man always socially conscious, the strongest yet.

—R.W.S.

PRODUCED 2005 BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

knowledge of the world is Mr. Shute's story.

The fellowship of craft and meticulous workmanship provides the key to the problems. Modest Keith Stewart finds that the *Miniature Mechanic* has created across half the globe a network of devoted admirers, many of whom are able and willing to work magic for him. This is pre-eminently a man's book, with masculine preoccupations, from the minutiae of engineering and machine-tool hobbyists, to the lore of the sea and heavy industry. It is a modern, male fairy tale, and its magic talismans are miniature machines, such as the tiny working generator Keith carries in his pocket as a strategic conversation piece.

After Keith, no character is more striking than illiterate Jack Donelly, hulking half-Irish, half-Polynesian owner and lone skipper of the *Mary Belle*, built with his own hands. With him Keith makes a remarkable voyage, by dead reckoning, from Honolulu to Tahiti. Donelly is given a storybook reward in the person of a redhead, who may be the least plausible item in the tale. But we must not forget Captain Petersen of the yacht *Flying Cloud*, or the Washington State lumber baron, Sol Hirzhorn, who is responsible for Keith's emerging from his adventure with something for himself as well as for his little niece.

Back in England, we say farewell to Keith Stewart, quiet keeper of his faith as trustee, and to Nevil Shute, who came to us also from the toolroom, as trustee of some grand stories, a farewell, too.

FRASER YOUNG'S LITERARY CRYPT NO. 876

A cryptogram is writing in cipher. Every letter is part of a code that remains constant throughout the puzzle. Answer No. 876 will be found in the next issue.

LOW FNWCLWAL
HWALNKSWN KB
HWDKENCES GX LOW
TKNMH GA TCN
GLAWMB.
—OCNNS WDWNAKX
BKAHGEP.

Answer to Literary Crypt No. 875

Definition:

Career girl: One who prefers plots and plans to pots and pans.

WEDDED BLISS

Mating Ways of the World

By PHILIP WYLIE, *author of "Innocent Ambassadors."*

AN "EMANCIPATED" West, which now bases its marriage ideal on "romantic love," has *somewhat* freed woman legally, politically, economically, and socially. It looks with horrified superiority on Eastern marriage-ways. The West has been appalled by the "cold-blooded" choice of brides and grooms by parents, who do not consult the couple concerned, who may make marriage deals for material profit or espouse child brides (in the old Chinese way), or who (in Hindu fashion) marry off girls not yet at puberty, lock wives in purdah, and who required, in some sects and till the British outlawed it, that any widow be burned alive on her husband's pyre.

The West was appalled by the slave-zombie estate of the Japanese wife (and by her husband's arrogant, permitted promiscuity) and it viewed the Moslem harem with a violent wrath—a mood not always fully sustained by all Western males.

The foregoing information—and a very great deal more which is fascinating—will be found in a new book, **"Marriage: East and West,"** by David and Vera Mace (Doubleday, $4.50). The British-born Maces belong to a new, self-originated (but codeless) profession called "marriage counseling." Dr. Mace is also today an associate professor of family study at the University of Pennsylvania, and he is chairman of the International Commission on Marriage Guidance. Furthermore, he is the author of a long list of books about sex and marriage.

The new volume, written in collaboration with his wife, is the result of on-the-scene discussions about various Eastern marriage-ways, of broad reading, of research in poll samplings undertaken in many lands, and of a partial change-of-heart. For the Maces started out their Asian inquiries, it appears, not only under churchly, Christian aegis, but with the idea—soon shattered—that they could "help" our trans-pacific neighbors by teaching them the superior value of our Western marital, courting, and other sex-related "ideals" and customs.

Although their book begins with a sort of cosiness one would expect in "marriage counselors" (without having talked to any) it is the open-mindedness of David and Vera Mace, along with their full and factual description of Oriental marriage- and sex-ways, which gives the book its singular interest and main value.

For the traveling husband and wife very soon found that the pagans they met were not only gentle, profound, and willing to share their inner feelings, but also that Asians were able to defend, remarkably effectively, some parts of their marriage practices. The Maces then worriedly observed that customs in all the far lands they visited were tending to change and to copy, ever more closely, our own habits of courtship and marriage.

THE more they learned, the more they wondered about the "ideals" of Western people and about the values of Eastern peoples. The authors' intellectual and emotional progress, their discoveries and their criticisms will captivate all readers, and especially those who are not "oriented" (prejudiced) by some scientific or pseudo-scientific "insight" into world marriage customs, gained through study slanted to fit a particular school of psychology, sociology, interpretive anthropology, and so forth. It is, in fact, refreshing to read a clear and simple description of human sex-ways that does not even pretend to be "scholarly" and will, perhaps, even suffer academic rebuke for the use of some of its source material.

As far as they carried their conclusions, the Maces achieved as much, I dare say, as most people of the West could in reconciling the East-West differences. They say, in their summary, that marriage is managed in four fashions: 1) through parental decision, without reference to the pair involved; 2) through parental choice, with some consultation of sons and daughters; 3) through choice by partners, made with parental agreement, and 4) through partner choice, made without regard to parental counsel.

The first type of marriage-making, still common in the East, the Maces deplore. The fourth type, common in the West, they equally disdain. The third—marriage consummated by couples who have freely selected one another, but *after* parental consultation and agreement—they regard as ideal.

Their conclusion, however, is cast in-

PRODUCED 2005 BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

to doubt by certain of their own statements. The most careful poll-sampling of "happiness" in marriages contracted by some Eastern methods (such as choice of bride and groom by parents, without a meeting of the couple until their marriage ceremony) shows that about half the thus-wed pairs are definitely without joy in each other. Similar polls of married Americans, taken with divorce statistics, the Maces say, show about the same percentage of marital discontent (and of content and of happiness, by inference) in matings caused by romantic love.

No attempt on a worldwide basis was made to compare to the happiness of persons married by the Maces' third, and chosen, means, with that of couples brought together in the three discarded fashions.

All they have even partially proven, one must assume, is that, given a normal male and female of approximately the same cultural background, the chances are fifty-fifty that (providing their wedding procedure also satisfies local norms) half of them will thereafter feel the married estate is terrible to not-so-good, and half will find it acceptable or better.

The Mace ideal of "boy meets girl, both love, both mamas and both daddies give blessing, and happiness ensues" is open to further question. It would, in fact, be easy to debate the universal wisdom of any of the four systems. Certainly, some young people will be far better equipped (by education, personality, individual motive, etc.) to choose a mate than some member or members among certain of the many sets of four parents. On the other hand, many young Americans, with the opportunity for sex-exploration supplied by their dating, will and do make miserable partner choices. Again, any four parents in one instance (or more) might disagree on any spouse-choice, for selfish reasons, neurotic reasons, and so on—or misjudge owing to disinterest or overparticipation in their young people's sex behavior and marital acts and aims.

However, what I feel sure is wrong with *all* human ideas about sex, love and marriage is not noted by the Maces. It derives directly, simply—and inevitably—from a fact set forth by the brilliant Joseph Wood Krutch in his book "The Great Chain of Life."

Mr. Krutch points out that all primitive life forms were at first biologically immortal. They reproduced by dividing into two identical beings. Each half, barring accident, went on dividing; and so their very substance was literally deathless. With the first one-celled organism that developed two sexes, Krutch points out, Nature made an enormous step forward. The mingling of genetic material of a male and female produced with each egg-hatching vast variation in the new individuals. And these were not only more various, thereby speeding up the opportunity for evolution, but they were far more numerous, giving Nature an added chance to induce greater mutation and so further to expedite that chain of upward evolution that has reached, at this point, man. Also, it should be added, sexual reproduction amongst lower forms of organisms soon led to the appearance of creatures capable of reproducing, not at the primitive, two-for-one rate, but at a rate of millions for two.

But, as Krutch notes with devastating understatement, even the first "invention" of sex obliged Nature to make a second "invention" in order to keep the living world from overswarming itself. The second invention was death. Death, then, is the biological "price" of sexuality.

When the ape-cousin that calls itself man first became different from all other creatures, the principal difference then was—and still is—the new creature's ability to *use time*. As no other animal can, man is able to remember and to use what he has learned (and what others have learned) in the past—and to use it now, to plan what he will do (or avoid) in the future. By the subjective use of that same, infinite ability to use the time dimension, man could and did develop a "known self" —an identity, an ego.

For man the value of ego, and of objective time-use, was great; but the price—a knowledge of mortality—was almost intolerable to most egos for eons. A spirit world was therefore designed: an afterlife, a post-death "immortality."

Nevertheless someday, I believe, cultures will rise in which masses of individuals do not devote their minds (and their time, energy, and treasure) to assorted attempts at achieving "personal survival after death"—at the cost of a proper valuation of their sexual nature and of the relation of *that* to real immortality: the great principle of Nature whereby, through individuals (and through pairs amongst two-sexed beings) life advances and endures.

As long as we seek immortality for our tedious selves, we shall be obliged to cloak sexuality with evils or its dirty names and its seeming of shame. For only by keeping some such cover over the meaning of sex in human terms can attention be fixed on the illusion of man's immortal "soul." What we all need then is not new marriage rules, I believe, but a new ethos:

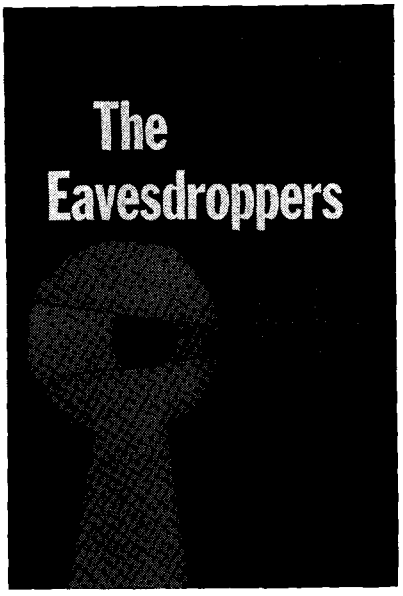
We can keep the idea that honesty alone yields truth. We need to add to it the concept—so fruitful as the ideal of science and so abhorrent to believers —that only an open mind, ready to be changed in any fashion by new evidence, is a mind alive and able to grow. And we should add the "time-factor" to that universal religious criterion, the Golden Rule, trying then to "do as we'd do were we to be, not another contemporary, but a future person." In that new faith would be found the existential essence, I think.

—Jacket art from "Marriage: East and West."

Today, a tendency in faraway lands is to copy our courtship customs.

PRODUCED 2005 BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Book in the News



"The Eavesdroppers," by Samuel Dash, Richard F. Schwartz, and Robert E. Knowlton *(Rutgers. 441 pp. $6.50), studies a controversial practice — wiretapping — which has raised temperatures and fears most recently in New York, where the constitutionality of the state's relevant laws has been challenged. Osmond K. Fraenkel is one of the general counsels of the American Civil Liberties Union.*

By Osmond K. Fraenkel

THIS BOOK deals exhaustively with three questions: to what extent, in the light of modern electronics, is eavesdropping possible; to what extent has the law tried to regulate it; to what extent is it practised by law-enforcement agencies and by private persons. The problems are considered in separate sections by three authors, each an expert in the particular field. The last question, which comes first in the book, occupies the greater part of "The Eavesdroppers."

The Pennsylvania Bar Association sponsored this work and the Fund for the Republic financed it. As Mr. Dash says in his introduction, the terms of reference excluded reaching conclusions or offering suggestions, a self-limitation that has been reasonably well observed.

The term "eavesdropping," for lack of another word comprehensive enough to cover wiretapping, use of dictaphones and other electronic devices, and ordinary spying, carries here no connotation of impropriety. The chief emphasis in all three parts of the book is on wiretapping.

In the section entitled "The Tools," Richard F. Schwartz discusses in detail modern devices available for tapping wires and otherwise listening in or looking in. He shows how easy it is to obtain many of these devices and put them into operation at relatively little cost and how difficult it is to detect them. He discounts some of the extreme claims which have been made with respect to long-distance eavesdropping.

Mr. Schwartz's study deals with the extent to which recordings of conversations can be faked. He describes a speech so edited after it had been recorded on tape that the playback completely altered the sense. This reviewer heard played both the original and the edited versions and can vouch for the sensational character of the result. The original speech condemned Communism and praised government investigators; the edited version praised Communism and condemned the investigators. And Mr. Schwartz assures us that not even expert study of the tapes can reveal a sure clue to the fact that the second version was a fake. While it is less easy to edit disc recordings than tapes, the possibilities of changes being made exist in both media. As Professor Knowlton points out in the last section of the book, opportunity should be afforded for testing any recordings whatever well in advance of their use at a trial.

The part of the book entitled "The Law" fully covers that of selected states: California, New York, Louisiana, Massachusetts, Nevada, and New Jersey. Professor Knowlton points up the anomaly caused recently by the decision of the United States Supreme Court in *Benanti* to the effect that disclosure of wiretaps made by state officers under authorization of state law nevertheless violates Federal law. However, state officials continue to authorize taps and to use them.

Professor Schwartz traces the law on ordinary eavesdropping back to 1390, and through Blackstone to early American cases. A person who listened "under walls or windows . . . to frame slanderous and mischievous tales" was treated as a common nuisance. In New York there has been a penal provision of like character for a long time, but it has hardly ever been enforced. Hearings held by a Joint Legislative Committee to Study Illegal Interception of Communications, headed by Anthony P. Savarese, Jr., led to enactment in 1957 and 1958 of laws to include listening by electronic devices. Unfortunately, the text of these new provisions does not appear here. In other states modern legislation is limited in scope either to designated places or certain kinds of situations, such as when lawyers talk with clients.

In his introduction Mr. Dash, himself once a prosecutor, vividly describes the difficulties that beset his present labors. The use of questionnaires was tried and discarded; cooperation of law-enforcement agencies was promised and proved unrevealing; a special investigator was employed, but he was either persuaded or frightened into doing nothing; Mr. Dash himself then undertook the assignment. He visited Boston, New York City, Philadelphia, Chicago, New Orleans, Baton Rouge, Las Vegas, Sacramento, San Francisco, and Los Angeles, interviewing editors, judges, police chiefs, prosecuting officials, private detectives, manufacturers of equipment, cab drivers, lawyers, and some of their convicted clients. Much of the information he obtained was given in confidence, so that in reporting it he has had to disguise certain factors. Often he was unable to use what he had uncovered.

ORIGINALLY the plan of the book had included a survey of Federal law-enforcement agencies. Pressure of time and budget limitations made carrying this out impossible. Mr. Dash suggests a study of these agencies' practices in the future.

One of the astonishing pieces of information in the book is that wiretapping is almost 100 years old and was used in the Civil War. Those early tappings were, of course, of telegraph wires, often to facilitate crooked gambling. As early as 1895 public attention was aroused by police tapping of telephones, and this periodically has been the case ever since.

In New York prosecutors insist that tapping is rarely used but that it has nevertheless been of vital importance in the solution of serious crimes. Mr. Dash believes there has been more extensive tapping than the prosecutors admit, perhaps because the police don't tell all they know, and that it is used most often in minor crimes such as gambling. That blackmail and shakedowns can result from its use was demonstrated by the Harry Gross case, in which a system came to light whereby bookmakers were compelled to pay for protection, both to the police and to Gross.

The Broady case in New York disclosed a method by which, through a crooked telephone employee, a private person maintained a plant at which ten telephones could be listened to at the

PRODUCED 2005 BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

same time and any of about 100,000 subscribers in midtown Manhattan tapped. This system was used to catch errant spouses, to learn business secrets for the use of competitors, to check on leaks by unfaithful employees. The opportunities for blackmail were, of course, enormous.

Cameras, closed television circuits, and microphones are in widespread use, especially in large establishments, for watching employees and detecting pilfering or disloyalty.

In cities other than New York there has been much the same development, although in many of them the police deny that they tap at all. In Boston the department insists it is not necessary, that only a lazy police needs to employ it.

In Louisiana tapping is seldom practised because the telephone company is ready to monitor wires for the police. In California private detectives have used electronic facilities in order to collect information for scandal sheets such as *Confidential.* In Las Vegas blackmailers have employed pretty girls to entice wealthy visitors to rooms which had been bugged. In Chicago the telephone company employees sometimes serve both the police and the criminals.

Mr. Dash deals at some length with conditions in Philadelphia, where he was formerly district attorney. The picture varies little from that in other places. But the author stresses the use he found of informers and undercover agents, and he expresses doubt about their reliability.

While the authors of this book have conscientiously resisted drawing any conclusions from their studies, a reviewer is under no such restraint. It seems to this one that eavesdropping is being practised pretty much in the same way regardless of the laws on the subject. Sharing Justice Holmes's belief that this is "dirty business," he is in favor of restrictive legislation and of banning the use of evidence obtained in violation of law. Yet it must be admitted that as long as police chiefs and prosecutors believe unrestricted eavesdropping helpful in the detection of crime, it will go on being practised. Nor will violators of laws forbidding it be prosecuted except, perhaps, where they are blackmailers or extortionists as well.

The view the work ascribes to a Boston gambler probably represents a widespread attitude on the subject: "It [law-enforcement wiretapping] would be all right if it could be confined to cops catching criminals. But you get all kinds of talk—a guy has a sweetheart—or is abusing his wife—all that comes in. For this reason I'm against it."

FICTION

To Control the Energetic Heart

Herbert Gold—liveliness, wit, and pity.

"Love & Like," by Herbert Gold *(Dial. 307 pp. $3.95), offers fourteen short stories with an author's note on each. Paul Engle is director of the program in creative writing at the University of Iowa and was for six years editor of the annual "O. Henry Prize Stories."*

By Paul Engle

IT IS A shame that there is not an annual prize for a collection of short stories so that this book could win it.

With constant liveliness, a shrewd wit, and a disenchanted pity for all human creatures, Herbert Gold has written about the relationships between men and women, between children and parents. Each story attempts to define the differences that our intense but fumbling emotions make between loving and liking.

In the title story Gold describes a man visiting his children in the apartment of his divorced wife. He is thinking back over the ordeals of nerves by which the marriage had failed:

> As always, his besetting flaw was the one of perverse hope and pride—the crazy patience of the man who needs love too much to take the necessary risk of losing it. When this danger is not challenged, love and like both are doomed. He had feared to compel his wife to follow his lead. He would not submit to being dragged along by her frantic jittering after happiness; she could not follow his bone-tired, patience-ended assertions of will; for them it had long been too late for all but knowledge, and perhaps in love it is always too late for that.

Set in Haiti, Paris, on the Atlantic, and in Cleveland, the stories remain individual in their sharply realized locations, but they share a common preoccupation with that perpetual problem: how do men and women control love, the energetic heart of which is that it must be uncontrollable or it is not the wild, authentic thing? Gold explores this question with a mind which is inquiring in its own way. The result is that, by the end of the book, our own understanding has been pushed farther along the road of human insight.

"The Heart of the Artichoke" is one of the past decade's finest stories. Like several of these tales, it is set amid the market life of a city. The narrator is a son struggling against the pressures of his family to conform. It avoids the general error of too much tenderness toward the yearning boy, while not compromising the basic issue of the story, which is the boy's tortured love for his father. The youth understands that for his parent, money was poetry, a symbol of life and power on one side, of economy and death on the other. The story moves its amusing and pathetic course, through family debates on marriage (money isn't everything, especially when taxes are so high) and a hilarious nature walk with an absurd science teacher, until the final climactic scene, where son struggles with father in as moving a conflict as recent fiction offers.

Gold's prose is supple and expressive: "The children of the divorced are engaged too soon in love as a strategy." In the darkness of a ruined marriage man and wife were "like a couple trapped forever at an abandoned Luna Park in the spinning, jolting cars of the Bug."

Some of the stories are too slight to make the impact that their potential development could have achieved. Nevertheless, if the American short story manages to keep its grace and force in a bad time, writers like Herbert Gold are responsible.

PRODUCED 2005 BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Modern Gothic with Guilt Edges

"Some Angry Angel," by Richard Condon *(McGraw-Hill. 275 pp. $4.50), chronicles the career of a newspaper columnist and in so doing makes some cogent comments on modern society. Novelist James Kelly is the author of "The Insider."*

By James Kelly

A MEASURE of the wildly wonderful quality of "Some Angry Angel" is that there's really nothing with which to compare it. A gargantuan, gothic, quixotic stew served up with crazy eloquence. A polemic against modern foolishness, with a compassion that is all the more effective because it is indignant. For starters, imagine the friendly echoes of Robert Nathan, Nathanael West, Joyce Cary (in the Gulley Jimson mood), Robin Hood, George Orwell, and "This Is Your Life" . . . yes, with a Dylan Thomas swing to the roistering, image-haunted prose which threatens every minute to burst into genuine iambic. Every reader is offered his chance and choice from a bottomless grab bag which has been filled by larceny and opens at a touch. In this sensual, informed tale of an abominable newspaperman-turned-gossip columnist, whose tracks lead all the way to the top of the mountain before they stop, Richard Condon has more than lived up to the clues and promises of his two previous novels, "The Oldest Confession" and "The Manchurian Candidate." In fact, Mr. Condon could become a Cult as quickly as you can say Kafka or Kerouac.

"Some Angry Angel" opens and closes in the grand ballroom of a Times Square hotel where columnist Daniel Tiamat is the central attraction of the Tenth Anniversary Dinner for the Friends of Miss Friendship. In between we follow Dan through his rowdy beginnings in New York's submerged sidewalk life, into the untidy start of a rocketlike newspaper career, which gathers facets when he marries Peg Downey, the editor's daughter, who also happens to be among the wisest, wittiest, and most appealing fictional females to come along since World War II. From there, Tiamat behaves as only an insecure, naïve, praise-hungry Irishman on the make and take could possibly behave. Grafters, grifters, gamblers, and columnist-chasing members of café society find him easy to pat on the head. An incestuous Cuban mistress named Pilar Castaños manages to take up the slack in his rampant ego and walk in and out of his life to the horrific end—a shameful secret shared by Joe Downey, Dan's boss and father-in-law, who uses it to force a collision course.

The money pours in, all of it guilt-tinged, and Tiamat's need for power and recognition drives him to feats (some alcoholic, some whimsical) which are far beyond his capacity and the tolerance of bosses, readers, listeners. We watch him fake his way as a heroic correspondent in the Battle for Britain, negotiate the grotesque tragedies of his personal postwar existence, and wind up as the incarnate ruin of a man who learns practically all he knows about life from readers of his lonely hearts column whom he has wounded by his cruelty. Wife dead, mistress estranged, crippled by polio, surrounded by the shards and remnants of career, Tiamat faces his audience in the ballroom as a bitter antichrist.

Do we have sympathy for Tiamat? Yes, because we are made to recognize that he is the inevitable result of weakness confused with strength when pushed to the middle of the stage without merit or cause. And there is hope, because Dan's daughter Carrie walks upright among the pitfalls so clearly marked by her father.

From this play and counterplay the author has fashioned a high human drama, full of tragedy, beauty, and truth. "Some Angry Angel" offers content and art, a portrait of human foibles and community degeneracy in bold colors. As funnybone entertainment it also hits hard at surviving members of New York's unlamented crumbum set who used to dance with shrill cries around the circumference of a certain fat restaurateur and may resent the lumps awarded herein to them and theirs.

LUCY PUTS HER SHOES ON: It doesn't matter if Britain's Angry Young Women school of writing was created from the rib of the Angry Young Men, for the AYW, as represented by Nina Baw-

Your Literary I. Q.

Conducted by John T. Winterich

HOME-GROWN OPERA

The two seasons of American opera which have been presented by the New New City Opera indicate an authentic liveliness in this genre. Robb McKenzie of Newark, New Jersey, gives twenty examples and asks you to identify the composers. Tickets taken on page 37.

1. "The Ballad of Baby Doe"	( ) de Banfield
2. "The Good Soldier Schweik"	( ) Barber
3. "La Grande Bretèche"	( ) Bergsma
4. "He Who Gets Slapped"	( ) Bernstein
5. "The Jumping Frog"	( ) Blitzstein
6. "The King's Henchman"	( ) Bowles
7. "Lord Byron's Love Letter"	( ) Claflin
8. "Merrymount"	( ) Dello Joio
9. "The Mother of Us All"	( ) Floyd
10. "Regina"	( ) Foss
11. "The Saint of Bleecker Street"	( ) Glanville-Hicks
12. "The Scarf"	( ) Hanson
13. "Street Scene"	( ) Hoiby
14. "Susannah"	( ) Kurka
15. "The Transposed Heads"	( ) Menotti
16. "The Trial at Rouen"	( ) Moore
17. "Trouble in Tahiti"	( ) Taylor
18. "Vanessa"	( ) Thomson
19. "The Wife of Martin Guerre"	( ) Ward
20. "The Wind Remains"	( ) Weill

PRODUCED 2005 BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

den, the author of **"Glass Slippers Always Pinch,"** (Lippincott, $3.95), has as much allure for the reader as femininity usually has for maleness. In some ways, it is also the weaker sex school of writing.

Glass slippers always pinch on the feet of Mrs. Bawden's heroine, Lucy, who is sometimes Kingsley Amis's Lucky Jim, sometimes John Osborne's Jimmy Porter, and always more shapely and more sentimental than either as she finds herself some room at the top. What's more, she's delightfully smart aleck. Tired of her husband's slim wages, Lucy ponders, "I thought the point about advertising was that you sold your soul and got a decent price for it."

The plot takes Lucy through Oxford, gets her married, has her leave her husband because of his displeasure when she tells him of her unfaithfulness (at the time she hasn't been unfaithful but merely given it a thought), has her reunited with him after she really has been unfaithful, makes her leave him again when he admits *his* unfaithfulness. All of this is not as preposterous as it seems, since Mrs. Bawden has written a parody.

Lucy, for the most part, is an enchanting girl with a sense of humor. But nobody in Mrs. Bawden's book is perfect and Lucy is forever afflicted with a puzzling self-accusation. When someone greets her by asking how she does, she's likely to answer very well, thank you, then realize she was neither doing well, nor was she grateful for being asked—and despise her hypocrisy. Mrs. Bawden's prose is frequently mannered. If it is satire on today's earnestly honest, young intellectuals, then her device is too repetitive to be effective.

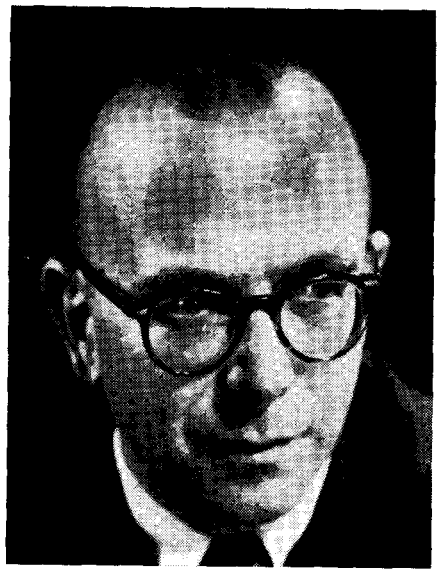
Yet, measuring the warm spots against the cold, Mrs. Bawden comes off well. She writes with as much sureness and economy as anger and youth, which is not a bad thing for either man or woman. —LEE SEGAL.

FRANCO PASSION-WARS: "A great sprawling, lusty family saga in a grand tradition," we are told on the dust cover of **"The Curtain Falls"** (translated by Humphrey Hare; Scribners, $5.95). What tradition, one wonders? Three books, a prologue, and an epilogue: dreary and summary illustration of all manner of sexual "cases" from impotence to incest; characters that keel over and die variously of strokes, suicides, murders, etc., at every crucial turn of the story; a hodgepodge of sexual, social, and political "shockers," which seem to have been relentlessly culled from the worst melodrama of the times. Maurice Druon, of course, is

(*Continued on page* 35)

IDEAS

A Handbook for the Years Ahead



—*G. D. Hackett.*

Robert L. Heilbroner—deserves more than praise.

"The Future as History," by Robert L. Heilbroner *(Harper. 217 pp. $4), uses the revolutions of this century as a compass for the direction in which the world is moving. Sidney Hook, professor of philosophy at New York University, has long been concerned with the status of our civilization.*

By Sidney Hook

THE TEST of historical insight is the ability to decipher in the myriad of today's events the direction in which we are moving. When the student of social affairs does more than this and tries to predict specific events, he is likely to come a cropper. For he can rarely allow for the relevant complexities involved, especially the role of human consciousness confronted by the challenge of the actual event. In this book, Robert L. Heilbroner performs the scholarly task of interpreting the future as history without succumbing to the temptation of playing the role of prophet. In a masterly discussion of the revolutions of our century he charts the course that the world has been following, the grave alternatives which will face us in the next decades, and the grim prospects for the survival of liberal civilization as we understand it in the West. His book could very well have been entitled "The Revolutions of Our Time": the scientific and technological revolution, the economic revolution, the democratic revolution, the organization revolution, Communist revolution, Nationalist revolution and, finally, the revolution of expectations in the minds and hearts of all peoples aware that their miserable lot is no longer fated to endure.

The upshot of all these revolutions, Mr. Heilbroner persuasively shows, is a drift away from our traditional economic system to one in which more and more social controls will have to be adopted to insure material abundance and the performance of necessary services. Much more disquieting is his picture of the West, and especially the United States, isolated in a world of hungry, expanding countries, no longer the cynosure of all eyes but the target of all criticism, no longer invulnerable to military aggression but living on the verge of disaster, and ideologically ill-equipped to conduct a counter offensive for freedom.

One of the root causes of our historical obtuseness and unconcern, according to Mr. Heilbroner, is the demonstrated bankruptcy of our national philosophy of optimism: we can no longer assume that progress is a fact rather than a precarious possibility. We must cultivate a sense of the problematic and ambiguous in history, scale our pretensions down to the order of our power, and build the structure of our faith on the values of "fortitude and understanding."

Mr. Heilbroner's book is excellently written in a sinewy and fast-moving style. It is a model of what thoughtful popularization should be. It is so good that it deserves more than praise. Since, in general, I am in lively sympathy with the main drift of his argument, my criticism, except on one matter of great importance, will concern itself with some secondary points.

Although the author is aware of the interrelated character of the problems the future holds for us (and probably because of his very awareness that they are related), he does not give them an order or priority or urgency. He is well informed about the dangers of Communism to the free world and its essentially reactionary character. But he does not recognize sufficiently the extent to which the Communist program

PRODUCED 2005 BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

for world domination exacerbates the difficulty of all other problems. Even if the Communist world did not exist we would still face multiple and grave problems of increasing complexity, domestic and international. But we would have an enormously greater chance of settling them were it not for the relentless and well-coordinated policy of the international Communist movement.

It is not merely the fact that the Soviet Union is taken by a few intellectuals and students in underdeveloped countries as a model of what might be achieved industrially by terror and dictatorship. We could meet this danger, as difficult as it is, with some new bold Marshall Plan. It is that the Soviet regime and an indefatigable Communist fifth column, whether in Greece or the Near East or Cuba, is working skilfully to prevent peaceful solutions of problems and to expand the area of Communist influence. Nor is this the only problem so affected. Is there any doubt that but for the intransigeance of the Soviet Union international control of nuclear energy could easily be established? After all, unanimous agreement on the Acheson-Lilienthal proposals, which would have put a stop to the weapons race, was prevented solely by the Soviet veto. This doesn't invalidate the picture Mr. Heilbroner draws. It makes it even grimmer. But it affects the overall strategy of defense.

The existence of American optimism in view of our Civil War (the bloodiest in history), its heritage of unsolved problems, and our three wars in the twentieth century is difficult to explain. It is necessary to make a distinction between optimism as a view that relies upon the beneficence of historical forces, no matter what we do or don't do, and which makes for a trusting passivity, and optimism as a view which is hopeful about the future *because* of our efforts to bring it about. Without striving to solve problems, we can't tell whether we are dealing with remediable evils or with evils we must endure. But without genuine hope or faith in the efficacy of human effort, we are not likely to strive very hard.

Is it American optimism or something else which has failed us in living up to our responsibilities of world power? Mr. Heilbroner says we are an optimistic people because "we strive to see in the challenges which beset us not obstacles but opportunities." Would that this were so! He himself establishes that our great failures so far have resulted, first, from *not* seeing challenges when they are emerging and, second, in not seeing the opportunities they provide. "We" in this context can only mean the intellectual and political leaders of America. A sufficient explanation of this double failure is not American optimism but lack of political intelligence. Fortitude is not in short supply— *vide* Truman's magnificent response to the invasion of Korea. But what of the initial policy of withdrawal and the proclamation that Korea was outside the scope of American interests, which invited that invasion and which an elementary knowledge of Communist theory and practice could have anticipated? Bipartisan illustrations can be multiplied of the persistent failure of American political leadership down to the present to understand the shape of events in the making until the shadow of threatening disaster falls athwart our path.

The chief lack in Mr. Heilbroner's work is one I am confident he would have adequately filled had he written at greater length. The future is dark and perilous but not hopeless. The author does not believe in the wave of the future; nor does he even in jest define an optimist as one who believes that the future is undetermined. Granted that our problems are not only opportunities but our opportunities are also problems, as he says. How shall we meet them? What proposals or programs of action must the free world make to remain free and secure in the troubled areas that Mr. Heilbroner has so skilfully explored? Optimism and pessimism both are moods of adolescent ardor. What does a realistic and mature understanding prescribe in the way of policy? Mr. Heilbroner has written a brilliant prolegomenon to such a policy. The policy is as much our problem as his but the very virtues of his book make one wish that he had come to grips with it.

Zone of Leadership

"Political Realism and the Crisis of World Politics," by Kenneth W. Thompson *(Princeton University Press. 261 pp. $5), offers a formula for mature statesmanship in our dealings with other nations. Frank Altschul is chairman of the Committee on International Policy of the National Planning Association.*

By Frank Altschul

IN THIS arresting volume Kenneth Thompson has combined academic research with acute observation in approximately equal proportions. Research has been focused on the theories and practices of those who, whether in thought or action, have played an influential part in the development of American foreign policy during the past decades. Included in this category are scholars, columnists, and members of that gifted group who, in a former Administration, comprised the Policy Planning Staff of the Department of State.

Mr. Thompson makes the point that, following World War II, "the study of international politics replaced the study of international organization as the central point of reference in international relations." Prominent in this approach, the author notes, has been the work of Reinhold Niebuhr, E. H. Carr, Nicholas J. Spykman, and Hans J. Morgenthau. Much space is devoted to an exposition of their ideas, as well as to the important if somewhat more limited part played by such columnists as Walter Lippmann and James Reston; and the chapter ends with a well-deserved tribute to the imaginative and creative thinking of the Policy Planning Staff as it was constituted under Secretaries Marshall and Acheson.

The relationship between theory and practice next engages the attention of Mr. Thompson. And after taking us rather far afield in a philosophical disquisition on some of the elements that contribute to the formulation of policy, he sets forth concretely a few of "the unsolved problems" implicit in statesmanship and theory. The first of these "arises from the frightening loss of prestige and power by Britain and by other European powers, accompanied by an equally frightening accretion of power by the United States." Another is the consequence of a conflict of views between ourselves and our allies over the nature of the diplomatic process. And the third is the trying "dilemma of conducting foreign policy in a democracy."

But Mr. Thompson has a simple formula for the solution of all these problems: "Executive leadership, honesty as to goals and limitations, and the replacing of a fatuous moralism that misleads the people, confuses our allies, and deceives our foes—all lie within reach. They await only a more courageous acceptance by leaders who aspire to statesmanship worthy of the name."

How long this more courageous ac-

(*Continued on page* 36)

PRODUCED 2005 BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Saturday Review

Editor: NORMAN COUSINS
Publisher: J. R. COMINSKY
Associate Editors: HARRISON SMITH, IRVING KOLODIN

Associate Publisher W. D. PATTERSON
Science Editor JOHN LEAR
Poetry Editor JOHN CIARDI
Production Manager PEARL M. STEINHAUS
Book Review Editor ROCHELLE GIRSON
Ass't. Book Review Editor ROLLENE W. SAAL
General Editor HALLOWELL BOWSER
Feature Editor JAMES F. FIXX

Editors-at-Large
CLEVELAND AMORY
HARRISON BROWN
JOHN MASON BROWN
JOSEPH WOOD KRUTCH
FRANK G. JENNINGS
WALTER MILLIS
ELMO ROPER
JOHN STEINBECK

Contributing Editors
HOLLIS ALPERT
HENRY HEWES
GRANVILLE HICKS
ARTHUR KNIGHT
KATHARINE KUH
GILBERT SELDES
ROBERT LEWIS SHAYON
HORACE SUTTON
JOHN T. WINTERICH

Out in the Open

WHEN MEN turn to history, they become self-congratulatory. They identify themselves with the great names in human experience; they give themselves credit for having produced a Galileo or a Harvey or a Lavoisier or a Jefferson. And they are astounded that previous generations should have condemned innocent peoples as witches, or persisted in the belief that the earth was the center of all things, or that doctors should have treated people for colds by bleeding them. Delusions and aberrations such as these astound the modern intelligence.

But such self-esteem is in itself a form of delusion. Galileo's researches and conclusions did not produce a race of men uniformly capable of peering into the nature of the universe as he had done. The overwhelming majority of men continued as they were. Harvey's discoveries about human blood did not transform all doctors into his intellectual counterparts; they may have learned about the bloodstream and improved their ability to diagnose and treat; but there were vast remaining areas in which their own natural limitations gave continued shelter to dangerous nonsense about the treatment of human disease. Lavoisier's ideas changed man's ideas about chemistry and helped to make it into a science, but this did not mean that everyone in chemistry, much less in the human family, was suddenly brought up to his level of intelligence.

It is a colossal conceit to suppose that the sharing of knowledge or techniques automatically produces a sharing of greatness. To be the beneficiary of an idea is not quite the same as originating it. Also, to have reached a peak in some fields today does not necessarily mean that civilization is now at a pinnacle from which man can look back upon and down upon long ages of mass delusion. We live a life of compartmentalization; some sections are marked with glittering splendor; others are as dimly lit as they were thousands of years ago.

No mass delusion in history, for example, can begin to compare with the general willingness in the modern world to accept *absolute* national sovereignty as a normal and essential part of rational group living. In the old days men tried to exorcise plagues by fanning the air. But this is inconsequential alongside the modern superstition that nations do not have to submit to a rule of law if the human race is to continue. Could anything be less rational than the idea that peace can survive a competition by nations in producing disease-making germs or large explosives which can destroy millions of people at a time?

We are aghast at government officials who at one time solemnly considered measures to protect the public against witches. Yet there is no outcry today against the incredible irrationality represented by the proposal of some officials to build underground shelters as protection against nuclear war. Hundreds of millions would have to be spent to create these intricate caverns, but no one has yet suggested how people are to be warned in time against an attack to do them any good. A missile carrying a hydrogen bomb can cross the ocean in some twelve minutes. Notice of departure will not be served. Even if the entire population of Manhattan Island could get into its cellars before the bombs were released, what would happen after the people got there? How many of the shelters will be sealed in under a mountain of spilled stone? And for those people who may be able to climb out into the open again, what kind of an environment will they find? Radioactive dust storms? Where do they go looking for food? How do they go about finding medical treatment and relief for the poisons in their bloodstreams?

The lack of full public discussion about an issue like this is in itself a throwback to a remote and primitive age of man in which the daily routine of the average individual had little relationship to the main questions that had to do with his life or death. Today, terms like "deterrent" fill the air; they are like insane incantations. The head of the Russian nation boasts of fantastic new ways of destroying civilization and attaches to it a word like "deterrent." A military official of the United States proposes that hundreds of jet bombers carrying hydrogen bombs be kept in the air at all times; he describes it as a "deterrent." But one nation's deterrent becomes another nation's irritant. What the Russians have been doing has not deterred the United States from stepping up the striking power of its own arsenal, and vice versa. One would search the annals of African tribes in vain for a less rational way of pursuing group security or protecting individual freedoms.

"It would seem," Arnold Toynbee once wrote, "that the more civilized we become, the more incapable of maintaining civilization we are."

TWENTIETH-CENTURY man will find his greatness not in a cellar or a shelter but out in the open where he belongs. Indeed, he will make his way in the open or he will not make it at all. He will achieve his moment of triumph on earth not by proving that he can emerge from a dungeon after his civilization has been obliterated, but by seeing the connection between cause and effect.

If every person on earth were to stop what he is now doing for as long as is required, and concentrate on this single problem, the investment in time would not be disproportionate. In fact, only as the individual begins to take the larger problem seriously and to recognize it as his own is it likely that the age of delusion will give way to reasonable hope. —N.C.

PRODUCED 2005 BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

LETTERS TO THE EDITOR

WHICH OBERAMMERGAU?

I READ with bewilderment the account by George N. Shuster of the Oberammergau Passion Play [*SR*, Mar. 12], for on the same day I also read a review, as reported in *The New York Times*, of an article on the same subject by Professor Robert Gorham Davis in the March issue of *Commentary*. It would appear to me that these men were not describing the same event.

The Columbia University professor charged that the production was anti-Semitic, tainted with Nazism, and an offense against both history and religion. Your commentator had no doubt in his mind that what he was witnessing "was honest, austere, very moving, and beautiful." Was Professor Davis attending the same performance when he said "the visitors to Oberammergau will see, under highly emotional circumstances, a play in which the synagogue is a rallying point for evil and in which the Jewish people accept gleefully for themselves and their children blood-guilt for the murder of the Christian Saviour?"

Even on matters of fact there seems to be a wide divergence of statement. Mr. Shuster states, "To qualify for even a modest part one must have led a blameless life." Was a blameless life led by Georg Johann Lang, who, according to Mr. Davis, was one of the first persons in Oberammergau to become a Nazi and was arrested in 1946 because of his work for Goebbels's propaganda ministry? Mr. Davis also quotes from an article by Willard A. Heaps, printed in the same year in *The Christian Century*, that 60 per cent of the residents of Oberammergau were active Nazis and that in the 1934 production 151 members of the cast were Nazi Party members. Is this what Mr. Shuster calls a blameless life?

HARRY SAHLMAN.

New York, N. Y.

IN MY ARTICLE about the Oberammergau Passion Play, I did no more than allude to certain problems which arose in connection with the 1950 performance. As I indicated, there were reservations about a member of the Lang family. While I did not personally review the record, it was the opinion of those of our officers responsible for such matters that the case was not sufficiently clear-cut to warrant opposition to the Play as such. Dr. Hundhammer did not take so lenient a view.

At about the same time, I had a letter from a friend serving the American Jewish Committee suggesting that I try to have removed from the text certain phrases quoted from the Fourth Gospel which can be taken to have anti-Semitic implications. But the Catholic authorities did not believe it wise to enter a discussion which is theological and scriptural in character, and of course it was obvious that the Government of the United States could not do so either.

THROUGH HISTORY WITH J. WESLEY SMITH.
"Now to face Mrs. Smith. *This* is the moment of truth."

Personally I wish that these references could be eliminated, but they do not in fact do more than repeat what is in the Gospel.

When my wife and I attended the Play, we had as a companion as intelligent and sensitive a Jewish friend as we know. What struck us all most was the resemblance of the actor playing Christ to a rabbi in New York with whom we were all friends.

It is clear that everybody brings to such a performance his own point of view. Many of the Americans who saw it were known to us, and several were men and women of eminence. None of them detected an anti-Semitic note. I must confess that I did not either, except to know about the references to the Fourth Gospel and to wish they were absent.

GEORGE N. SHUSTER.

New York, N. Y.

OTHERS TO KNOW

THE REVIEW by David Boroff of "Ourselves to Know" [*SR*, Feb. 27] leads me to wonder where Mr. Boroff has been for the last five years.

Commenting on the social realism of the author, John O'Hara, Mr. Boroff observes that it has become unmodish but adds: "By no means extinct, it flourishes in the dingy sub-literature of paperbacks." One is at a loss to know what he means. In these days, Shakespeare, Tolstoy, Homer, Dante, Goethe, Sophocles, Euripides, Plato, Plutarch, Cervantes, the great English novelists, and American writers such as Mark Twain, Hawthorne, Emerson, Thoreau, Faulkner, Salinger, and just about anybody else you can name, are all available on the 100,000 newsstands of the United States. It seems that Mr. Boroff must have been existing in some sub-basement of his own.

JAY TOWER,
New American Library.

New York, N. Y.

ART AND THE EMPEROR

READING Katharine Kuh's "Can Modern Art Survive Its Friends?" was an experience I've long waited for, that of finding clear, sensitive, no-nonsense, and very much to the point art criticism . . . Her contributions to the critical scene are major ones, and this latest article is one of the most significant things in the field that I've ever read. I congratulate Miss Kuh for . . . pointing out that so often in the field of art the emperor isn't wearing any clothes.

DENNIS ADRIAN,
Allan Frumkin Gallery.

New York, N. Y.

MISS KUH'S fightin' the battle of Géricault, and the walls'll come tumblin' down.

LEON DESPRES.

Chicago, Ill.

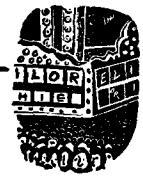
SALES SLIP

IN YOUR REVIEW of Cecil Hemley's "The Experience," published by Horizon Press [*SR*, Mar. 19], you erroneously listed the price as $3.95. The correct price is $3.50.

EMANUEL GELTMAN,
Horizon Press.

New York, N. Y.

PRODUCED 2005 BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED



SR GOES TO THE MOVIES

The Jungle and the City

I FIND myself continually amazed at the lengths to which human beings with motion picture cameras will go to record the facts of this world on film. This amazement applies to "**Masters of the Congo Jungle,**" a splendid documentary. Making this film involved the sending of several teams of zoologists, cultural anthropologists, and cameramen into the heart of the Congo to observe the relationships between the life of the animals and the rituals of the primitive tribes, presumably before everything is to be changed, if not wiped out, by the advance of modern civilization. The scientific and cultural safari, sponsored by Belgium's International Scientific Foundation, took all the time necessary – something over two years—and commissioned Henri Storck, a Belgian documentary film producer, to put the widely disparate film findings into a cohesive whole. This was no mean trick, considering the fact that the stork dance of the Watusi maidens had to be blended with the death throes of the giant pangolin; the mud baths of the hippos with the delicate peeling of bamboo shoots by a family of gorillas.

Animal life, bird life, and tribal life are observed in the closest of intimate detail, free of the Disney type of animal sight gag, and rhumbas on the accompanying sound track. I had assumed that the telephoto lens was used to get many of the startling shots—lions gnawing away at their freshly killed raw meat, an eagle swooping with archaically royal arrogance through the Congo river-valleys, and, not the least, a yawningly close view of a bubbling volcano—but I find that this was not so, that the camera teams took as long as forty days to position themselves in such a way that the hippos would no longer charge, or the birds flee from their nests. Birds, it seems, can add but not subtract. If three men entered the observatory hut, built as high as 130 feet in the jungle air, only two men would have to leave before the birds would return. The third could then whir away with the camera.

As for the natives, the point is made clearly and convincingly that they hunt for food and not for sport, that they kill only what is necessary for survival. If the pygmies kill a sacred pangolin by error (the scales of the pangolin, so the commentary tells us, inspired the leaf-over-leaf construction of the pygmy huts) a mystical ceremony is necessary to purge the tribe of guilt, to reiterate a simple but wise message, still valid, that peace is vastly preferable to war. As travelogue alone, this movie would be superb. So fascinating are the images on the CinemaScope screen, so pristine the color, that it takes a second viewing to notice the artfulness of the composition. One doesn't expect this kind of beauty from men working cameras a yard away from gorillas, prowling leopards, and nervous pelicans, not to mention parched catfish gasping away their lives in the drought season. The mountains, the valleys, the rivers, the plains, are viewed in magnificent vistas. Intrepid and dedicated are the words for the men who discovered and made this film.

The commentary, spoken by Orson Welles and William Warfield, is solemn and, I'm afraid, pseudo-poetic, making one wish that these commentary writers would leave poetry alone and stick to the facts. Nevertheless, some of the facts are there, even though they sound as though they were intoned by Buck Mulligan on his morning parapet. It makes clear that the Bonyanga men have a myth and ritual of almost impenetrable complexity, all to be swept away by the genuine masters of the jungle, the whites who will do much more than invade the primitive reaches with notebooks and cameras. Meanwhile, here is the Congo as it has existed through the centuries, recorded as authentically as possible under the circumstances, and with fitting dignity.

NO GREATER contrast could be imagined than by viewing back to back, so to speak, the above-mentioned film and Lionel Rogosin's "**Come Back, Africa.**" Mr. Rogosin, a young American who specializes in what might be termed the fictional documentary, went to South Africa ostensibly to make a travel film. Instead, he went into forbidden places and filmed a simple story about apartheid, the separation of blacks and whites, its consequences for now, and its ominous potential. His story is about Zachariah, a young colored family man whose native village has been struck by famine, and who has found it necessary to sign one of the slavelike contracts to work in the gold mines near Johannesburg. He manages to get a pass to the great city, and there seeks work and quarters for his family, finding the latter in Sophiatown, a segregated quarter of shacks and shanties gradually being demolished to make room for a fine white suburb. Mr. Rogosin's movie had to be filmed hurriedly, and the haste shows up in a rather poorly patched story, but he was luckily working with real people, and the very spontaneity of many of the scenes gives his story illumination, shock, and an intense poignancy.

Zachariah first works for a Johannesburg housewife, a waspishly ignorant woman, filled with some of the most dreadful of white South African prejudice. He next finds a job washing cars, goes from there to hotel servitude, only to be dismissed because of the rape fantasies of an elderly woman in a hotel. In the midst of his difficulties his family arrives, and police arrest him because he has taken the liberty of sleeping with his wife in her maid's quarters. He meets others of his people, finds them disillusioned, hopeful, cynical, maddened. One cinematically crude scene simply shows a group of colored South Africans discussing their problems, but it is right for the camera to stay positioned, for the talk is enlightening, and, I should think somewhat frightening for any stray white Johannesburg politician who might happen to see this film. Yet, Mr. Rogosin's view doesn't seem particularly biased; his camera points out the faults as well as the virtues of the natives he sympathizes with. His dramatic crescendo at the close leaves the problem unsolved. There it is: what is to done about it? The camera, unfortunately, can only pose and expose, the rest is up to the brain and heart.

—HOLLIS ALPERT.

—From "Masters of the Congo."

Practicing a husband-catching rite.

PRODUCED 2005 BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

The Change of the Tide

By PETER RITNER, *author of "The Death of Africa," to be published by Macmillan later this month.*

ONE HATES to be a spoilsport when he has been invited to view such an exquisite film as **"Master of the Congo"** is (see opposite page). But I have been asked to comment on some of the "political" and "social" implications of this movie, and you will agree that this is an impossible assignment if I am not to be allowed to dish the sport a bit. There is only one major charge I care to lodge against the picture, and this is not so much a charge as an observation. It is this: the picture reflects the way the Belgians even today look at Africa, and it would be the worst folly for Americans to follow their example.

The Belgian Congo is a gigantic country, about one-third the size of the United States. In the eastern part of this huge land, if you include the delightful Belgian trust territory of Ruanda-Urundi, one finds the loveliest landscapes on the entire continent—the misty, green-mantled mountains marching up the spine of Africa, the central lakes lying in the floor of the Lesser Rift Valley like a chain of pearls, the endless game-plains of the high savanna. And nearly all of the Congo is genuine wilderness: in 1960 the total population of the colony was estimated at about thirteen million.

Despite the testimony of this beautiful new movie, however, this vast, empty land, with its extraordinary experiences and challenges, has always failed to cast a spell over the Belgian imagination, in the way, for example, that the East African highlands enchanted three generations of Englishmen. The Belgians have generally viewed their fabulous possession as a kind of elephantine botanical garden. There are the rain forest, arid veld, and Mountains of the Moon; there are the animals and birds, some of them uniquely odd and gorgeous; there are the scattered tribes with their various quaint means of surviving in jungle or veld and their "age-old" ceremonies of rain making, initiation into manhood, etc.; the river, the plains, the hills. And, lo, here and there a copper or uranium mine, or an oil-palm estate of the Unilever people, an airfield, a suburb for Europeans, a railroad, a wharf—the operations of which render the whole colonization feasible and profitable. But the Congo is not "home" to the 125,000 Belgians who live there. Only a few thousand are classed as "settlers"; the rest are employees of the powerful outfits that oversee the place—the army, the administration, the mining and plantation combines. And the Africans to whom the Congo *is* home are not viewed by the Belgians as "imperial partners." Up until a few years ago it was official policy to discourage or prohibit their getting an education, and even their learning French.

—*From "Masters of the Congo."*

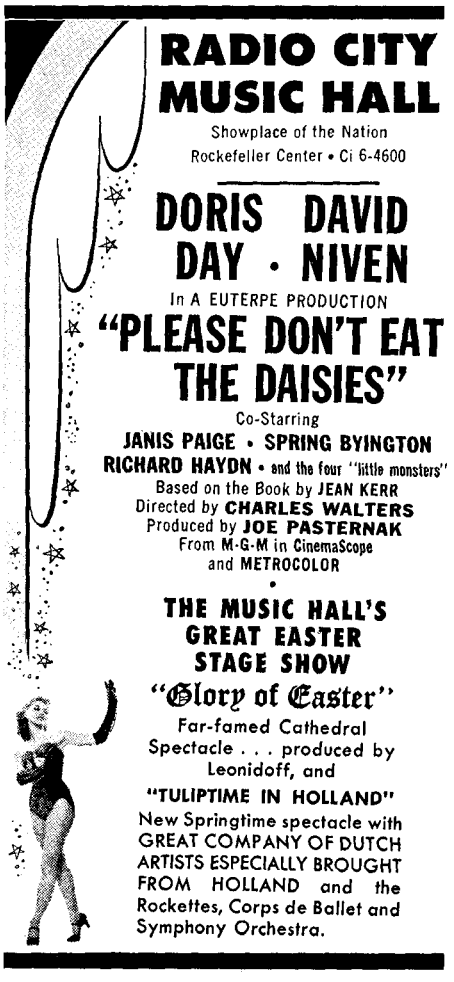
Congo men captured in CinemaScope.

No one would ever guess from seeing the picture under discussion here—or from talking with the ordinary Belgian—that perhaps 33 per cent of young male Congolese now live in urban environments, that almost half of the working-age African males work at least part time for wages. No one would ever guess that the most helpless of all the actors in the modern Congo are what are called here the "masters of the Congo": the village wise men with their tom-toms and memorized genealogies and their instinct for the "harmony of nature and man" of which so much is made in the bathetic narration. One does not have to take sides for or against "gradualism" or "tribalism" to realize that the bare act of trucking a movie company through the bush, photographing naked girls and "sacred" dances, irremediably destroys the fragile cultural equilibria of tribal life. Primitive societies are like atomic particles; the very act of observing them deforms them. When Belgian cameramen and businessmen, with Belgian penicillin and Belgian guns and Belgian habits, come tramping through the trees, the psycho-social "harmony" of the tribe evaporates as if it had never existed, of course leaving a residue—too often a dispirited and bewildered residue—but a residue whose character is as new to the Congo as the Belgians are themselves.

Today's and tomorrow's master of the Congo is not the witch doctor but the young buck who has followed the Belgian out of the forest to learn his secrets in the towns, and who has picked up the skills of running a blast furnace, editing a newspaper, and organizing strikes and political parties. In one generation these men have found that they can win power enough not only to ride down the languishing tribal cultures without troubling much about them but also to confront and oust the European intruder. In the practical sphere the Belgians understand this perfectly well, and that is why they are presiding over the Congo's "Independence Day" this upcoming June 30. Indeed, it is worth noting that the Belgians are an extremely likable and hard-working people, and for half a century they managed the Congo—eighty times the size of their homeland—about as well as any land or people can be "managed" by the arts of conscientious administration. Now they are wise and humane enough not to tarry for storms of blood to convince them that the hour of this management has struck. But the bias of their vision of Africa has not necessarily shifted much. In this particular film the Belgians are looking backward; perhaps they have earned the right to look backward; perhaps they own the right no longer to care. But we Americans do not possess these privileges.

What remains to be said is that the new masters of the Congo face a sea of troubles through which they cannot swim on their own resources, given no matter how much strength and cunning. They face an exceedingly severe environment, with vicious patterns of rains and droughts that ruin farming and stock raising even in the limited belts where they are practicable at all. They face the social disruptions of tribal degeneration, rapidly increasing urban populations, and what is euphemistically termed the "revolution of rising hopes." They face a wildly distorted economy and intolerable subjection to undependable world markets: the price of copper, for instance, responsible for roughly 40 per cent of the Congo's foreign exchange earnings, dropped almost 50 per cent

PRODUCED 2005 BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED



RADIO CITY MUSIC HALL

Showplace of the Nation
Rockefeller Center • Ci 6-4600

DORIS DAY • DAVID NIVEN

In A EUTERPE PRODUCTION

"PLEASE DON'T EAT THE DAISIES"

Co-Starring
JANIS PAIGE • SPRING BYINGTON
RICHARD HAYDN • and the four "little monsters"
Based on the Book by JEAN KERR
Directed by CHARLES WALTERS
Produced by JOE PASTERNAK
From M-G-M in CinemaScope
and METROCOLOR

THE MUSIC HALL'S GREAT EASTER STAGE SHOW

"Glory of Easter"

Far-famed Cathedral Spectacle . . . produced by Leonidoff, and

"TULIPTIME IN HOLLAND"

New Springtime spectacle with GREAT COMPANY OF DUTCH ARTISTS ESPECIALLY BROUGHT FROM HOLLAND and the Rockettes, Corps de Ballet and Symphony Orchestra.

"An Electrifying Hit!"
—COLEMAN, Mirror

KERMIT BLOOMGARDEN presents
JASON ROBARDS JR. MAUREEN STAPLETON IRENE WORTH
in LILLIAN HELLMAN'S New Play
TOYS IN THE ATTIC
with ANNE REVERE
Directed by ARTHUR PENN

Mail Orders Filled Promptly

Evgs. Mon. thru Thurs.: Orch. $6.90; Mezz. $5.75, 4.80, 3.60; Balc. $2.90. Fri. & Sat. Evgs.: Orch. $7.50; Mezz. $6.90, 5.75, 4.80; Balc. $3.60, 2.90. Mats. Wed. & Sat.: Orch. $4.80; Mezz. $4.05, 3.60; Balc. $2.30. Enclose self-addressed, stamped envelope with check or money order and list 3 alternate dates.

HUDSON Theatre, 141 W. 44th St., N.Y. 36

MAKE BIG MONEY IN SPARE TIME

writing for TV and FILMS.

"SCREEN WRITING AND PRODUCTION TECHNIQUES" tells you all you need to know to write successful scripts . . . gives plots, ideas, formats . . . tells how programs and pictures are made. If your bookstore cannot supply you, send check for $4.95 to publisher:

HASTINGS HOUSE, Dept. S
151 E. 50th St., New York 22

from 1956 to 1958. They face disease and near-universal malnutrition, in a population 50 per cent of which is younger than sixteen years of age. In the good old days none of this mattered to the world. Who then counted the Congolese who dropped dead from famine, parasitism, internecine wars, overwork on slave gangs, or attacks of wild animals? But the era of "civilization's" indifference to Africa has vanished into the mists of time along with the medicine-man's rattle. Here, now, is a new, fast-modernizing, unbalanced, profoundly disturbed land in the center of one of the major continents of the earth—soon to be governed by fallible men who must somehow seize the reins of "progress" or forfeit their careers and perhaps their lives. The United States—and, indeed, the entire West—must promptly ditch once for all its image of the Congo as botanical-garden-*cum*-raw-material-warehouse. We must *help*—and in a big way.

I SHOULD have preferred not to write on the heartbreaking **"Come Back, Africa,"** a movie whose force lies in its conveying of the "feel" of African life in the cities of the Union of South Africa rather than in a bare-bones plot. What is there to say that is newly illuminating about this monstrous country? The government of the Union of South Africa—a land of fourteen million despotized over in all important respects by fewer than two million Afrikaners, who speak a hideous private language and keen over a fantastic stock of private doctrines and grievances—is one of the real freaks in the history of the world. How the regime operates from day to day has been described by men of far greater eloquence and first-hand knowledge than I possess; by Alan Paton, by Father Huddleston, and even in such a study as Gwendolyn Carter's "The Politics of Inequality." This incredibly self-isolated and self-pitying community will not be persuaded or lectured to; it will not look ahead, or learn from experience; it will not bend a millimeter; each year that passes sees these people enacting their resentment, fear, and guilt into harsher and crazier improvisations of oppression and dehumanization of the Africans on whose sweat they live. As a matter of fact, the one significant omission from "Come Back, Africa" is the sense of the Afrikaner presence in Johannesburg, from farmers in for the week-end, to young bully-boys in the police, to lower-middle-class burghers on their front stoops—with their heavy faces, wary eyes, dreary Teutonic self-indulgence in inferiority complexes, and implacable determination to get back their own even if they have to slog into the jaws of Satan to do it.

I was disagreeably surprised to see that one of the minor players in this film is the best friend I have in Africa, a blithe and gallant Xhosa journalist of about nineteen, and for what it's worth I should like to record the pain of being reminded of my friend's existence in this wasteland without being able to help him climb out. Unfortunately, there is relatively little that Americans can do, except to experience futile twinges of this sort. The regime is not very susceptible to American pressures, although we ought to do more than we have done. South Africa is the richest country in Africa, and the Afrikaners who rule it spend a good part of their revenues purchasing the latest in pursuit planes and phosphorus bombs which—as a member of the government declared the other day—they are hoarding not against an external enemy but against any "Native" uprising. Whatever happens, the future is appalling to contemplate. But in the long run 200 million Africans must prevail over two million Boers; and no one has made this point more explicitly than a few of the Afrikaners themselves, such as the liberal philosopher P. V. Pistorius. The question obsessing everyone in South Africa is: When will the blood bath come?

This no man knows. But come it will. The last scene in "Come Back, Africa" is a shattering one: the hero, whose wife has just been brutally murdered, piece by piece demolishes his miserable shanty, while groans of agony and rage pour from his throat. The endurance of the African is proverbial, but in the Union the Afrikaner has long ago exhausted the supply. The cosmos does not permit proud, coarse, nasty little sadists forever to torture, encage, and starve helpless men, women, and children. A mountainous debt of rage is accumulated, and it gets paid off in an explosion which wipes the tormentors off the face of the earth. Save for the harm it does his own soul, the Afrikaner can keep playing at the game of *Herrenvolk* so long as he remains blind to what is happening in the new Africa around him and to the north of him; and if he insists upon it he can remain blind up to the very second his throat is slit from ear to ear. I wish there were something we Americans could do to help avert this hecatomb. But it is a very tricky and inaccessible situation for us to cope with. Of course, one thing we certainly can and should do is rededicate ourselves to our own values at home, to ensure that similar just debts of rage, even miniature ones, are not accumulated here in America. And, again, to be ready to help the instant our help can be useful.

PRODUCED 2005 BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

MUSIC TO MY EARS

The Georgian Invasion—More Reiner, Rysanek

WITH a total population of 4,000,000—not much more than that of America's Missouri, Wisconsin or Indiana—the Georgian republic of the USSR has produced a dance ensemble whose first American performance in the Metropolitan Opera House suggested that the secret of perpetual motion has at last been found. Obviously, every other Georgian must be a talented dancer to provide a reserve from which could be chosen an ensemble of this one's amazing vitality, good looks, and uniformity of size.

Taken together, this was not so much an entertainment as an endurance contest. As the bounding, leaping, scooting males and the swaying, gliding, darting females have practiced their evolutions from childhood, their resources are sufficient to overcome the resistance of any audience. Indeed, the plaudits and bravos could hardly equal the virtuosity displayed, as if this audience was simply stunned by so much bodily abandon. Folk music, played mostly on accordions, was used throughout.

The four programs to come in Madison Square Garden will provide ample opportunity for detailed comment on the program. For the moment it may be noted that the marathon power of these performers extends also to such male specialities as walking or whirling on the knees, or balancing on the toe points of flexible boots with no interior support. Reasonably enough, the uncommonly tall, uniformly good-looking female "line" restricts itself to more reserved movements, artfully arranged by co-directors Nino Ramishvili and Iliko Sukhishvili to provide the audience (if not the performers) with needed relief. If these two enjoy the cherished status of "Stalin Prize Laureates" it is not only because they, like him, were Georgians, but because they have ennobled and dignified the human body, a cause to which we are all devoted.

Fritz Reiner's too-brief tour as conductor of the New York Philharmonic ended as it had begun: as a *tour de force* of informed leadership. The interrelated elements of Reiner's exposition in week two were the divertissement from Stravinsky's "Baiser de la Fée" and Ravel's enlargement of Moussorgsky's "Pictures," with Rudolf Serkin as soloist in the first Bartok piano concerto. This made for a certain congruent effect orchestrally, though something with a little more substance might have been preferred along the way.

The possibility that the Bartok concerto might provide such an element was fulfilled only in the slow movement, which tends toward the poetic impulse Bartok pursued so profitably in his works of the Forties. Otherwise it is infused with the rude strength that looks back to his younger days, not so well balanced by other elements as it later became. Serkin's strong performance left little doubt that it is a work with qualities incompatible with its long neglect. At the Sunday matinee they substituted the Mozart Concerto in C (K.467), in a performance of seasoned professionalism whose common purpose excluded virtually nothing pertinent to the work's finest effect.

The four performances of Stravinsky and Moussorgsky were all on a rarified level, though none could quite have matched the effect of the "Great Gate at Kiev" as the evening-ending music on Thursday. The final chords were build to a tidal wave of resonance which not only "brought down the house," but also a cluster of balloons which had nested above the stage after being released during a performance of Poulenc's "Les Mamelles de Tirésias" last month. A conductor is rarely provided with such a visual reaction to the sound he creates.

SOMETHING Verdian was added to the Metropolitan's "Boccanegra" with the first appearance of Renata Tebaldi as Amelia, even as something was subtracted with Frank Guarrera as Leonard Warren's replacement in the title role. Maria is a part that challenges the kind of finesse that Miss Tebaldi provides in Desdemona, as well as some of the power admired in her Aïda, and her objectives were typically elevated ones. But, as in her earlier Leonoras in "Forza," she was vocally uncertain at the start, gaining in ease as she progressed, but never quite free in sound or sure in control.

Guarrera's endeavor had two or three obstacles to overcome: his own lack of power, vocally and physically, and the still-vivid recollection of his predecessor's abundance. He worked diligently to amend the one and enhance the other, but it is asking much of a lyric baritone unschooled in such heavy parts as Iago, Scarpia, di Luna, or Barnaba (which are the steppingstones to its artistic level) to become a Boccanegra in weeks or a few months. He looked well as the young Boccanegra and sang the music of the prologue acceptably, but it is not in his endowment to make the power-wielding Doge of the later action the dominant figure he should be.

Another first Metropolitan effort was Leonie Rysanek's Marschallin in the season's last "Rosenkavalier," best described as a rough diamond. When suitably polished, the many facets of her fine talent may shine through the haze of uncertainties which now surround it. She did not seem to be quite sure how to make her low and middle register accommodate itself to Strauss's orchestra, and she is short of stature for the regal figure one pictures mentally. But she has the kind of dramatic flair to bring vitality to such a part. Her good looks are an appreciable asset, and she has a comedy sense which makes for "play" as well as performance. The evening otherwise provided for a brief blooming of two Metropolitan perennials: Risë Stevens's inimitable Octavian (this will be remembered as "The night Mariandel upset the chocolate pot" in Act I) and Hilde Gueden's Sophie. Albert da Costa had a ringing success as the Italian tenor.

BENNO MOISEIWITSCH demonstrated the uncertainties of the critical life and the fallacy of drawing unknown conclusions from known "facts" with two appearances under widely differing conditions. From certain past evidence one would suspect that intimate surroundings would be more to his advantage than spacious ones. However, in a Carnegie Hall appearance with the National Orchestra directed by Howard Mitchell he played a sizable, fluent, admirably controlled "Emperor" Concerto of Beethoven; in the much smaller Grace Rainey Rogers auditorium of the Metropolitan Museum of Art, an erratic, sometimes harsh, and generally perturbing program of Chopin. Half of the twenty-four preludes were beautifully played, the others blemished by wrong notes in the least expectable places.

Mitchell's mostly young, admirably spirited group prefaced the Beethoven with stimulating performances of two works by composers whose mere names were new, but worth remembering. The "Sweelinck Variations" by Karl Holler (Bamberg) showed a considerable expressive power, rather traditionally realized; the "Contrasts" by Paul Fetler (now resident in Minneapolis), a lively faculty for turning the orchestra inside out and recombining its elements in a novel way. Perhaps if they studied with each other, the results would benefit both.

—IRVING KOLODIN.

PRODUCED 2005 BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

FREE*Gondola ride

WE CARRY
COOK'S TRAVELERS CHEQUES

*Our ride on the canal was free—on what we saved in buying Cook's world famous Travelers Cheques. Cost 25% less than others on the issuance charge. They're safe, accepted everywhere and promptly refunded if lost or stolen. Backed by the world's largest Travel Organization.

THOS. COOK & SON (BANKERS)

ONLY 75¢ PER $100...WHY PAY MORE?

at authorized banks, travel agencies and all Cook's offices.

FREE

NEW 1960 GUIDE TO EUROPEAN AUTO TRAVEL

Gives costs, dimensions, performance of all foreign cars; how to rent, lease or ship home; 8 pages of cars (48 models) in full color. Tells how to get free mileage chart, kilometers-to-miles conversion table, maps, hotel guide, etc. Learn how to save enough money on a car to pay for your trip to Europe . . . 30 months to pay for your car!

NAME_____

ADDRESS _____

CITY _____ STATE_____

RA

AUTO-EUROPE® Inc.

NEW YORK: 25 West 58th St., N. Y. 19—PL 3-1752
CHICAGO: 153 E. Ohio St., Chi. 11—MI 2-3211
LOS ANGELES: 268 S. Beverly Dr., Beverly Hills, Cal.—BR 2-2921
SEATTLE: 1911 Fifth Ave., Seattle, Wash.—MA 2-3223
TORONTO: 88 Eglinton Ave., E., Toronto 7—HU 7-0173

Join Red Cross

BOOKED FOR TRAVEL

On the Beach

HAVING DALLIED only recently in the unceremonious precincts of Reno and Las Vegas, where a visitor in overalls may start a fortune or lose a nest egg, I was taken somewhat aback by the formalities that have been embroidered on similar enterprises that operate in the ancient and tradition-bound acres of southern Florida. The Dania Jai Alai Palace, a startling auditorium between Fort Lauderdale and Hollywood, just north of Miami Beach, must be the only house of chance in the world where the touts wear tuxedos. Two of them were at the door the night I pulled up. Dressed to the nines in black ties and dinner jackets, they hawked Gonzales Original Green Card, a thirty-five-cent passport to inside information and untold riches.

The tuxedoed touts were only a glimmer of what awaited the visitor on the inside. One could, for example, buy seats in the royal box, an enclosure fitted out with white divans, white carpets, and marble tables decorated with vases of fresh flowers. A butler in a rig borrowed from a Friml operetta serves champagne, and a whole squadron of ladies dressed up like the Spring fair in Seville will fetch anything from two cents plain to Chivas Regal. The players, led by the referee, also in tuxedo, march in to lively strains played on an organ. The procession does a right face in front of the grandstand, the players salute with their *cestas*, the baskets attached to their arms, and the game is on. The betting is, to say the least, spirited. Comely ladies come to your seat to relieve you of cash. During the intermission the air is rent with a tenor and the organ, and dinner is served all during the proceedings.

By the time I showed up at the Dania Jai Alai Palace I was more than ready for the ceremonial air that pervades Florida gambling, for I had only that very afternoon come sartorially a cropper at Gulfstream Park, now in the full flood of its winter meeting. Armed with turf club tickets and cloaked in a zippered gabardine jacket which I had exchanged with Messrs. Abercrombie and Fitch for a respectable percentage of my weekly stipend, I presented myself at the gate. "But these are turf club tickets," said the lady in the cage with a look of horror. "I don't think they will honor your jacket. And besides you have no tie." The elevator man looked me over with clear disgust, as if I had been a delivery boy in the guest elevator at the Waldorf. "Where you goin', buddy?" he asked, surveying the open throat and the sporty handiwork of A. and F. I flashed my turf club ticket and he took me aloft, but indicated I would never make it. Final judgment waited

The Diplomat Hotel in Hollywood-by-the-sea—for 540 guests, a choice of seven dining rooms, two pools, and one ocean.

PRODUCED 2005 BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

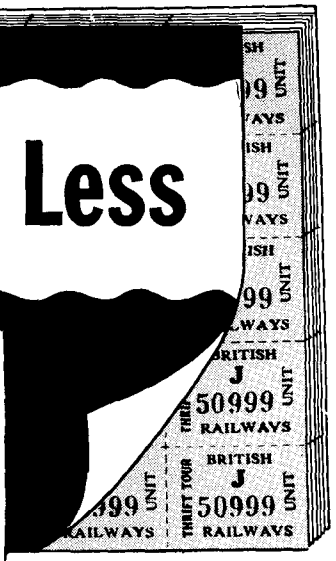
at the door of the clubhouse, and the verdict was guilty. "I am afraid I cannot honor your jacket," said the keeper of the barrier. So we were required to sit with the common gamblers on the tiers below, where, when passing from seat to paddock, one is required to submit one's hand to be stamped. When returning you put your hand under a violet ray to show the gatekeeper that the admission has been paid. These were not the least of the strange customs of the natives of Gulfstream Park, where between horseraces—there being no organ—a miniature paddle-wheeler and a covey of sailboats play on the flooded infield.

Just down the pike at the Hollywood Kennel Club, one may also spend the idle winter hours wagering on the greyhounds, but heaven knows what you have to wear to get in there. I decided to forsake the dogs. Besides, the lady at the race track who voted me out was convinced, I am sure, that I had long since gone to them.

The area encircling Hollywood-by-the-sea, where all these sporting endeavors are grouped, has become a central playland for both Miami Beach and Fort Lauderdale. Skiers ski on the inland waterway along with the yachts, and golfers, under the gaze of Dr. Cary Middlecoff, the local pro, stamp up and down the links of the Diplomat Country Club. Hollywood seems to be one of the last areas along the strip where one can shoot both arms out sideways without crashing each fist into the concrete wall of a hotel. A large point of minor conversation here this winter has been the encroachment of the Fontainebleau's new wing on the sun rays which God originally allotted to the Eden Roc next door. It didn't seem to cause the Roc to tremble, however; on the evening I stopped by, hordes of guests were countermarching in and out of the Cafe Pompeii where Pearl Bailey was in her final days and Lena Horne was expected any minute.

There are as yet none of these problems up in Hollywood, which is fifteen miles north of the official northern boundary of Miami Beach, and which twenty years ago, speaking Miami-beachwise, was considered to be somewhere north of Quebec. The Diplomat, when it was built two years ago, was placed on a tidy plot of 400 acres. In the minds of the builders of Miami Beach hotels, 400 acres is an area exceeded only by Kansas. On this reservation, the owner, a chain store merchant named Samuel Friedland (Food Fair), erected a giant hotel and, across the street, a handsome super motel. Together, they can house 540 guests, who eat in seven dining rooms, swim in two pools and one ocean, and play on one

Britain Costs Less



by train! Quicker and more comfortable, too. And a full-course meal costs only $1.50. Buy Thrift Coupons before leaving U. S. (not sold overseas). Give you up to 1000 miles . . . good also on Irish cross-channel, MacBrayne's and Clyde steamers.

From your Travel Agent

1st CLASS $34.50 2nd CLASS $23

Wish "planning" literature?
Write British Railways, Dept. E, 0-4
630 Fifth Avenue, New York 20, N.Y.

Rates vary in Canada

Or buy a Pass!

A British Railways "Guest Ticket" is good on any train in England, Scotland, Wales (except a few Continental boat trains) for 9 consecutive days. Just show your "Guest Ticket" and go anywhere in Britain. First Class $39, Second Class $26.

ON YOUR NEXT TRIP ABROAD

INCLUDE A VISIT TO

THE SOVIET UNION

Only hours from the major cities of Europe, the Soviet Union offers an exciting and memorable adventure for the American tourist. You can choose from more than 50 itineraries covering many different areas. You can saunter along the streets of historic cities . . . bask on the beaches of the Crimea and Caucasus, relax to the age-old strains of Russian folk-music . . . attend concerts, ballet and opera . . . or browse through museums and art galleries.

For a wonderful vacation experience visit the Soviet Union.

For full information, contact your travel agent or write:

INTOURIST 355 Lexington Ave., New York 17, N. Y.

PRODUCED 2005 BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

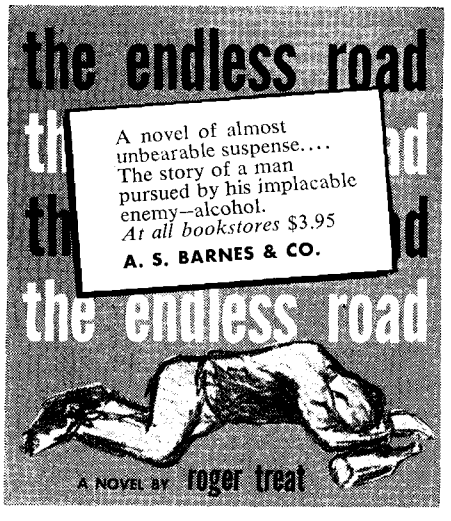
In these times of constant change, Hotel St. Regis zealously maintains the old-world qualities which have made it one of the world's finest hotels. With its unlimited facilities and experience, faultless service and unequalled cuisine, The St. Regis is more than just a hotel, unique in its prestige. There is no more impressive address in all the world for you on your visits to New York.

HOTEL ST. REGIS
Fifth Ave. at 55th St., New York 22

Book a VICTOR BRITAIN Car
for your vacation in Britain!

* *Enjoy low, inclusive rates. All gas is free.*
* *Friendly, personal service.*
* *Latest model British cars, many with automatic gear shift; also chauffeur-driven limousines.*

Write or cable:
VICTOR BRITAIN
European Leaders in Car-Hire.
Berkeley Street, London, W.1, England
Telex. 23688 Cables: Autobritn, London


the endless road
A novel of almost unbearable suspense.... The story of a man pursued by his implacable enemy—alcohol.
At all bookstores $3.95
A. S. BARNES & CO.
the endless road
A NOVEL BY roger treat

EUROPE
We'll see the usual, plus Russia, Scandinavia, Yugoslavia & N. Africa. A different trip for the young in spirit who don't want to be herded around. Also shorter trips & student tours.
EUROPE SUMMER TOURS
255 Sequoia, Box B — Pasadena, California

golf course. Soon they will play on two courses, because one has proved too small.

For one thing, golf has been given away this year, part of a vast Miami Beach campaign to fight deep-cutting competition from the Caribbean. The Diplomat, now at last under the professional management of the Family Jacobs, operators of New Hampshire's Lake Tarleton Club, also gives away three meals a day. At a first-line hotel hereabouts the bricks can crumble, but better it shouldn't happen to the cuisine. With the rates for each of two persons in a double room beginning at $22 a day with golf and food, the bead has been drawn on the Caribbean hotels, which this season are asking up to $60 a day for two. At that price some West Indies hotels don't include lunch, and none that I know of offers golf free on a full-fledged course.

Similar lures, being set out the length and breadth of the beach, extend into all price categories. Some hotels that glittered briefly in the limelight for one season a decade or more ago are down to $9 per person per night, two in a room. Add three dollars each for full breakfast and dinner. And it must be said that many of these hotels, were they located on Caribbean islands or European resorts, would be considered luxury establishments, capable of demanding top-scale prices. But free meals and free golf are just the beginning. Some places are offering free parties and free chaises and mats, for which, in bullier years, they had the effrontery to charge. Free entertainment and free parking are some of the attractions, and one inn is offering the chance to share the fun of a Miami vacation by offering a "shipboard share plan," at $11 a night, to anyone who is traveling alone.

Even the motels, standing there cheek by jowl along Motel Row, with their bizarre names and startling décor, if I may call it that, are now four-square in the entertainment business. Only roadside rests in the Thirties, motels now have nightclub shows and dancing. If, heaven forfend, you wish to leave the premises, perhaps to see Sinatra who is playing downtown on the Strip, a corps of babysitters is on call. And if the law prohibits gambling, which once flourished in Dade County, at least Motel Row can offer the spice of the magic names. Among the marquees that shine out on both sides of Route A1A are the Golden Nugget, Thunderbird, Sahara, Riviera, Dunes, and Tropicana, all of them identified with hotels and gaming parlors in Vegas.

If the building of hotels and motels seems at last to have satisfied the appetite both of would-be builders and would-be guests, houses and apartments seem to be the new excitement. Miami Beach was spawned in Steve Hannagan showmanship, and there is no reason for it to have outgrown its heritage. To help sell off his home sites, one builder imported the Clyde Beatty Circus. In a project called Golden Isles, near the Diplomat, where a home-building development is underway, the promoters imported fifty tons of snow, set a platoon of sea scouts to a snowman-making contest. Later, any kid who had inveigled his parents into bringing him to Golden Isles was turned loose in the frost pile. The fellow who thought that one up figured that after *reading* about snow all winter—four flakes in Manhattan could crowd Khrushchev off the front page down here—they might want to see what it looks like. It was a brain wave in the best Barnum sense.

BUILDING a home here, or buying a cooperative apartment, is the next step evolving from frequent visits to South Florida hotels. I wonder what has taken this phase so long to get under way. Certainly one of the encouragements is the new air facility. Eastern brought in its own jets last month, enormous DC-8Bs which are now flitting back and forth between New York in two hours and fifteen minutes. It's an incredible shuttle service when you recall that it was only the other year that we were all clucking about the four-hour run that had just been installed. I must say the daylight flights have been scheduled at sensible hours, 11:00 in the morning and 2:30 in the afternoon. Soon to come is night coach service, with a 9:15 p.m. departure from New York and a 10 P.M. departure from Miami. The fare is to be $52.80, which seems equitable enough when you consider that jets cost $5¼ million each. Somebody up in Rickenbacker's roost has figured out that the first-class seats cost $1,250 each, that the lavatories, of which there are five, come to $8,500 each. The forward luxury lounge, which seats seven, costs $12,000, or $400 more than a six-room house currently being offered in a Florida development.

There we were the other afternoon running along at 575 miles an hour, nearly six miles in the sky. "We are coming up over Charleston, South Carolina," the pilot said, "and at six minutes after the hour we will pass over Jacksonville." I looked at my watch. It was one minute before the hour. It was a great experience, coming down like that, but I couldn't help but reflect—I hope Captain Rickenbacker will permit me—on those uncluttered days when you just walked to the beach.

—HORACE SUTTON.

PRODUCED 2005 BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

BROADWAY POSTSCRIPT

Lustless Love

TO FABRICATE "**Dear Liar**," director-adaptor Jerome Kilty has begun by offering us a voluptuous measure of the nostalgic elegance that attended the theatre in the period when Shaw and actress Mrs. Pat Campbell exchanged their famous correspondence. The curtain rises to reveal a pink-upholstered Victorian settee on which rests the black hatbox containing the letters, while graceful music of the period swells discreetly in the background. The scene tells us that though Shaw may write the best half of the entertainment, the drama will come from the plight of an aging actress whose fortune and misfortune it is to be remembered less for her own beauty and personality than for her "love affair" with a great playwright.

The evening is never so splendid again. Katharine Cornell and Brian Aherne introduce themselves as themselves, then patiently proceed to read excerpts from the letters and related material. Speaking with studied contentiousness and in a brogue, Mr. Aherne seems almost entirely concerned with making the most of Shaw's preposterous ego. And Miss Cornell paints Mrs. Campbell as a rather stoic and dignified lady with an unmasked contempt for vulgarity, which, though it is frequently amusing, scarcely fits the character of the emotionally turbulent Mrs. Campbell. The best line of the evening, Alexander Woollcott's description of the actress as "a sinking frigate firing furiously on her rescuers," is one Miss Cornell decorously declines to demonstrate.

Still, since Mrs. Campbell was sometimes better as Mrs. Campbell than as the character she was supposed to be playing, so Katharine Cornell's performance is blessed with the virtue of her talent, which manages to shine through a dense mist of dignity. Something matters very much to her, and though we do not give a damn about *it*, we do feel an awe for *her* and for her ability to insist upon her concern so fully.

Thus she manages to delight her audience with an interpolated scene from "Pygmalion," not by playing Eliza well, but by her visible condescension to the role Shaw wrote in cockney dialect "just to torment her." And later on she achieves an effectively understated sadness when circumstances force her to write Shaw letters begging for money, and to accept his refusal with grace. When in one letter she explains that she "just wanted him to know what she had been doing with life these last few years," Miss Cornell makes the word "life" suggest the part of living that Shaw soared over, but which Mrs. Campbell battled through.

Probably our interest in "Dear Liar" comes more from the tangential revelations that attended the correspondence than from the fluctuating emotional and financial temperatures of its principals. Among these are Shaw's attitude toward death, as exhibited in a long speech on the ecstasy of watching his mother's corpse being cremated, or his denouncement of the sentimentality which dulls our determination to stamp out war; and of course the sad but inevitable deterioration of elegance through the years, so nicely suggested by Donald Oenslager's décor, Jean Rosenthal's lighting, and Sol Kaplan's music. They combine to make it a pleasant browse through an old curiosity shop—but don't expect any startling acquisitions.

BEVERLY CROSS's "**One More River**" is a mixture of melodramatic mutiny and accurate, realistic representation of life aboard a freighter. In welding the two together, the Broadway production somehow loses the essential strong focus on the play's victim, bos'n Johnny Condell. He is the man whose pride leads him into a disaster he does not deserve. We watch him take an unfair dressing down from the ship's new captain, and retaliate by giving the deckhands the keys to the hold where they can loot a case of whiskey. This one act leads to a chain of dramatic crises, in which the bos'n acts beyond the call of duty to prevent a mutinous murder of the captain, but at the play's end is left bearing the blame for all that has happened.

This ending is desperately unsatisfactory because the play's events have all been so accidental that this final twist of injustice condemns no one but fate.

On the other hand, there is some fine acting by Lloyd Nolan as the bos'n, Alfred Ryder as the high-strung captain, and John McLiam, Al Lewis, and Harry Guardino as members of the crew. If only there had been a little more poetry and a little less melodrama it would have been a pleasanter voyage. —HENRY HEWES.

A BORZOI BOOK

A book to delight all who know and love ROME

Elizabeth Bowen's

brilliant new book

A TIME IN ROME

"...this is one of the most perceptive, delightful commentaries on the Eternal City to come my way."
—CARLO BEUF,
New York Times Book Review

Typography, binding, and jacket designs by WARREN CHAPPELL

$4.00 at better bookstores everywhere

ALFRED A. KNOPF, *Publisher*

An invitation to the

FIRST ANTIQUARIAN BOOK FAIR

to be held in New York
Steinway Concert Hall,
111 W. 57th St.

MON. APR. 4, 5-10 P.M.

APR. 5-9, 10 A.M.-10 P.M.

23 Antiquarian Booksellers will offer selected

BOOKS
MANUSCRIPTS
AUTOGRAPHS

in many fields.
All items will be for sale.

Admission free.

The American BOOK COLLECTOR
Now in our 10th year
$5 a year
(10 Numbers)
2 Sample Copies $1
5 Sample Copies $2
1822-24 School Street
Chicago 13, Illinois

PRODUCED 2005 BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Poetic Violence in Three Parts

"39 Poems," by John Ciardi *(Rutgers University Press. 86 pp. $3.), is the third book published in 1959 by SR's poetry editor. "How Does a Poem Mean?," a critical anthology, was published as a textbook by Houghton Mifflin last April, and will appear in a trade edition next June. His first book of children's verse, "The Reason for the Pelican," was published last September and has received lively acclaim. The present volume is a collection of new poems. Foregoing all question of the merit of his new collection, Mr. Ciardi here explains why it has not been assigned to a reviewer, and takes this occasion to state the basic intent of his book. It is perhaps worth noting that Saturday Review's other editors customarily permit their books to be assigned to dispassionate outside critics.*

By John Ciardi

THE LAST TIME I published a book of poems I announced its existence to SR readers (*SR*, June 21, 1958) with what I meant to be a careful disclaimer. I could not undertake to review it, since a review implies some judgment of merit or lack of merit. I simply stated that the book existed, tried to state my basic intent in it, and appended a sample poem.

Within a month I had more than a hundred letters about my arrogance in assuming that no one eles was equipped to review the output of my swollen ego.

Gentle (and not-so-gentle) readers, I do happily confess that it is fun to stir up the beast in you, but tell me—what am I to do? Shall I get a pal of mine to say it is the greatest thing since Homer? Shall I dig up some student I flunked out of school and give him a chance to get even? As poetry editor, I must pass on all poetry reviews. That makes it an inside job no matter how handled. Let it, therefore, be declaredly an inside job.

In a sense, no one chooses the poems he will write. The poems choose him as they come, and he struggles to make them firm. For whatever reasons the ultimate psychiatrist might discern, the poems I feel firmest about seem to be locked in violence. Dudley Fitts once identified violence joined to control as the central quality of my way of writing. I know the violence is there—it keeps coming out. I hope the control is there—at least I have labored for it.

The present volume is in three parts. The first consists of rather personal poems and is subtitled "In Ego with Us All." I intend that subtitle to convey the idea that what is personal to any man becomes, when it is pursued deeply enough, personal to every other. I may not have carried it deeply enough, but that is a question of performance, and I am here describing intent.

The second part consists of what used to be called "social poems"—comments on the state of the world—and is subtitled "In the Year of the Longest Cadillac." The intent of these poems, I suppose, is that basic occupation of poetry: to find the place of value under the shifting surfaces of the world.

The third part consists of poems about poets and poetry and is subtitled "Certainties." Art, I believe, is a certainty men can live by. Could we find a world as good and as orderly and as meaningful as art, we should all have the certainty of sound values to live by. It is the world that confuses: art assures. It must do so over and over again, but always it brings that certainty into view again.

MOST of the poems are too long to quote in full. I append as a specimen poem the first of two "Inscriptions for a Soldier's Marker." I don't know how typical it is, but its length is manageable. I could quote the second part but many readers would not like some of the necessary language. (It is not polite language, but it *is* necessary: when a society asks boys to die in its defense, I think it is morally obliged to listen to that death in the language the boys used in their dying.) The first inscription, then:

Reasoning as my people reasoned, I stared
with God from a gunsight, praising Him
whole
for the man I killed. His blood is not
restored

except by blood. I learned in the grapnel
fields
that the best of us is danger. Praise Him
who holds the dead boy and enfolds

the leg blown from its body. When I fell,
deeper than grass, His name dunned
all the ground.
For as much as I understood, I paid
in full.

P.S. Any reader who still wishes to accuse me of having reviewed my own book must first find anything in the foregoing that claims I have written well. That I have tried to write well I will declare to any man. Whether or not I have done so rests within any reader's judgment.

—From "The Nymph of Fiesole."

PRE-"DECAMERON": The most recent item to be added to a fast-growing list of translations and studies of Renaissance and earlier texts is Donald J. Donno's faithful prose rendition of Giovanni Boccaccio's poem in ottava rima, "Il ninfale fiesolano." The date of composition of **"The Nymph of Fiesole"** (Columbia University Press, $3.50) has never been precisely determined. The best guess of the scholars places its writing between 1344 and 1346 (or even as late as 1349), which is to say when its author was about thirty-five years old. He had lived in Naples for several years, and had had a long love affair with Maria d'Aquino, the natural daughter of King Robert. He then headed north and settled in Tuscany. It was there that he wrote the last work which belongs, so to speak, to his "first" period and, shortly afterwards, began writing his masterpiece, the "Decameron," which he completed in 1351.

Therefore, "The Nymph of Fiesole," the work that stands chronologically closest to the "Decameron," is significant not only as the first idyllic poem written in Italian, but as a document attesting to the artistic growth of Boccaccio. After having unburdened himself of a large share of the classical baggage and the cumbersome language that make the earlier "Ameto" and the "Amorosa visione" dull and difficult

PRODUCED 2005 BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

reading, the author "found" a style that was at once limpid and musical, light and yet realistic. Even since its first edition (in 1477), the poem has enjoyed great popularity, and has been reprinted more than thirty times.

The story of "The Nymph of Fiesole" is quite delicate, and contains dramatic, pathetic, and sensual moments. The protagonists are Affrico, a handsome shepherd, and Mensola, a fifteen-year-old girl (reader of "Lolita," beware!), with whom he is deeply in love. His father, Girafone, tries to dissuade him from his love, but without success.

The plot echoes in several places Ovid's "Metamorphoses" and Dante's "Comedy," the last of which Boccaccio knew well and often quotes verbatim. But the borrowings from the classical authors matter little, since Boccaccio managed to write a tender love story which has freshness and originality, especially in the treatment of Mensola's maternal feelings for Pruneo.

Mr. Donno is to be congratulated for his felicitous translation and for the accurate scholarship of his work. Those wishing to continue the study of the poem will find his preface and commentary quite useful, and the final bibliography indispensable. I must add, finally, that the format of this precious little volume and the exquisite drawings and illustrations of Angela Conner succeed handsomely in enhancing the story. —Sergio Pacifici.

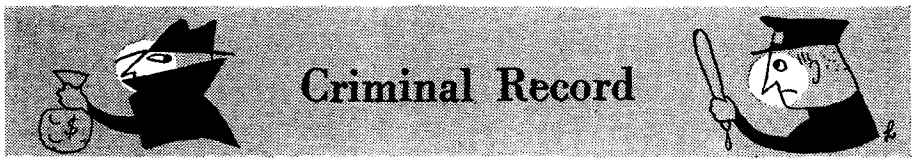
Fiction

Continued from page 22

the initiator of the sensational "Accursed Kings" series, written by a team, and directed to the public which likes its "True Stories" presented with an historical flavor.

As unadulterated "commercial literature" this would be acceptable, even welcome sometimes when exciting enough. But there is really no excuse for pretentiousness in an author who is putting together a story false both psychologically and socially, and technically poor as well.

As an added attraction, Maurice Druon has hinted that there are "real" personalities involved hidden under thin disguises. Well and good. But why pretend that this wearisome "saga" has any connection whatsoever with the history of France in the *"entre-deux guerres"*? Of course, it does concern only the "aristocracy," "political figures," and "big businessmen" in a society as rotten as it is capitalistic and shockingly corrupt. Maurice Druon is no Aragon, and he makes up for it by liberally commentating his own scenarios. "A society can be happy in spite of its internal wounds; disaster follows after. Similarly, a society may appear happy though many of its members are suffering." This is insight with a vengeance. —Germaine Bree.



A HAMMER IN HIS HAND. *By Whit Masterson. Dodd, Mead.* $2.95. Southern California policewoman's violent death (husband is slain with her) sends excellent cops (m. and f.) into action; did Werewolf do all? Put this close to the top of your list.

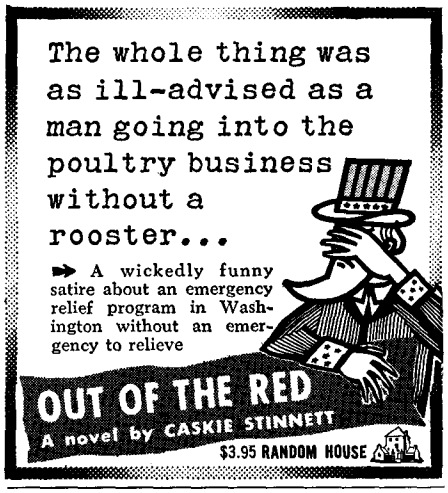
TIGER ON MY BACK. *By the Gordons. Crime Club.* $2.95. Kansas girl, secretary in U.S. Embassy in Paris, takes on CIA assignment that carries her to Monte Carlo and Morocco and into pressing peril. Orthodox dame-in-jam job, with offbeat scenery.

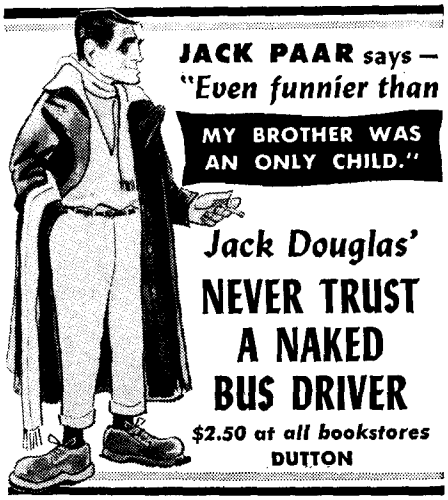
THE BELL ON LONELY. *By Margaret Page Hood. Coward-McCann.* $3.50. Isolated Penobscot Bay isle is scene of native son's violent demise; nice Deputy Sheriff Gil Donan quietly investigates. Good baffler, with excellent color, background.

THE CASE OF THE RUNNING MAN. *By Christopher Bush. Macmillan.* $2.95. Ludovic Travers, erudite London eye, journeys to Shakespeare country to look over painting collection and to help capable Yard crew catch two-time killer. Usual sound think-piece.

THE TROUBLE AT SAXBY'S. *By John Creasey. Harper.* $2.95. New Yard boss makes things tough for Inspector Roger ("Handsome") West, who is forced to play lone and wary wolf to free framed suspect and tag killer. Typical lively job, but cast is phenomenally huge.

WHAT EVER HAPPENED TO BABY JANE? *By Henry Farrell. Rinehart.* $2.95. Ancient movie star, crippled, and virtual prisoner of embittered sister in Victorian Hollywood mansion, wonders what will happen next—and it does. Spine-twister. —Sergeant Cuff.


The whole thing was as ill-advised as a man going into the poultry business without a rooster...
A wickedly funny satire about an emergency relief program in Washington without an emergency to relieve
OUT OF THE RED
A novel by CASKIE STINNETT
$3.95 RANDOM HOUSE


JACK PAAR says — "Even funnier than MY BROTHER WAS AN ONLY CHILD."
Jack Douglas'
NEVER TRUST A NAKED BUS DRIVER
$2.50 at all bookstores
DUTTON

"One of the most intelligent love stories of our times."
—AUBREY MENEN, Saturday Review
THE CONSTANT IMAGE
by Marcia Davenport
$3.95 SCRIBNERS

McKNIGHT FOUNDATION
HUMANITIES AWARDS

In connexion with its Humanities Program for 1960, The McKnight Foundation offers prizes of $1,000 each for outstanding unpublished works submitted by Minnesota residents in the following fields: AMERICAN HISTORY, AMERICAN MILITARY HISTORY, AMERICAN BIOGRAPHY, ANCIENT HISTORY, EUROPEAN HISTORY, THE NOVEL, THE NOVELLA, THE DRAMA, AND THE ESSAY.

Works submitted must reach the Foundation by December 1, 1960. For rules and further details write:

The Secretary
The McKnight Foundation
736 Mendota Street
St. Paul 6, Minnesota

PRODUCED 2005 BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Ideas

Continued from page 23

ceptance must be awaited is not a subject on which Mr. Thompson is inclined to speculate. But he leaves no doubt about his position in regard to the current controversy on the subject of foreign and military policy. He hardly seems to agree with President Eisenhower's statement that "our defense is not only strong, it is awesome, and it is respected everywhere." For, according to the author, "the breakdown of American leadership is . . . due to the lag in American military policies . . . No reasonable man of course can believe that the end of the Cold War is in sight . . . nor should anyone think we could negotiate a lasting settlement from our present position of weakness."

Moreover, Mr. Thompson does not share the view that criticism of our present posture is of necessity politically motivated and unpatriotic.

> In this crisis it is fitting and proper that private citizens and public officials should take the lead in calling for a rededication of our national strength and treasure to the restoration of American power. This is so because there has been or will shortly occur a radical shift in the military balance of power threatening the West and ourselves with total destruction . . . If these proposals for resolving the national will against an ever more powerful and unscrupulous foe are appallingly grim, the mortal dangers we face are yet more forbidding.

This is not a general, tainted with parochialism, sounding a note of warning. Nor is it a Presidential aspirant seeking dramatic headlines. It is a political scientist appraising as objectively as he may available information.

And he looks upon the danger of which he is acutely aware as furnishing a "matchless opportunity to which another American President may respond. Leadership that draws its strength from the fires of moral and intellectual courage can rally men to do their utmost in education, science, and diplomacy." It is in this somber setting that Mr. Thompson ends on a hopeful note.

TWO-FISTED LIBERTY: Anyone familiar with H. A. Hayek's "Road to Serfdom" of over a decade ago will find again in his monumental new work, "**The Constitution of Liberty**" (University of Chicago Press, $7.50) is basic premise that liberty must resist all forms of coercion if we are to keep open the road to continuing growth. And of all forms of coercion "unlimited government" is the most dangerous.

If that seems a reasonable proposition, it appears at once quite unreasonable in the light of Professor Hayek's list of the enemies of liberty: mainly socialism, social planning, administrative government, the welfare state, differential taxation, trade union monopolies, and world government.

Since these appear to be the irreversible tendencies of society in general, one wonders why Professor Hayek persists in a futile and doctrinaire dissent. The answer is that he is a determined and convinced crusader trying to influence public opinion by "indicating desirable directions of development." But however desirable in principle, their application offends the realities. I do not minimize Professor Hayek's wide-ranging scholarship; he writes as economist, political scientist, sociologist, and moralist. He is no conservative; he devotes a chapter to explaining why he is not; even the conservatives, he says, are dominated by statism. He is rather a libertarian, indeed almost a philosophical anarchist, dedicated to freedom without state coercion.

While I share his view of liberty as the essential force for growth, I part company with his rejection of the state as an instrument incapable of reconciling liberty with social needs and claims. We are not, I suggest, on the way to being all incorporated into huge, impersonal machines where the individual no longer functions. Yet that is the professor's thesis and fear.

I would not dismiss so courageous and provocative a study as merely Utopian. It has the high value of reminding us of some basic principles; and it posts a warning on the road of change which many others have pointed out in the dangers of big government, big corporations, big unions.

A curious theme marks Professor Hayek's treatment of equality before the law, kin to Anatole France's satiric reference to the law's ban, for rich and poor alike, on sleeping under bridges. He would not use law to correct inequalities; the rich and poor would pay exactly the same per cent of their incomes as taxes (though with other inescapable differentials). Nor would the state correct inequalities beyond a bare minimum of well-being.

A fair picture of the author's thought may be gained from this single sentence in his treatment of social security. He writes: "Though we may have speeded up a little the conquest of want, disease, ignorance, and squalor, we may in the future do worse when the chief dangers will come from inflation, paralyzing taxation, coercive labor unions, an ever-increasing dominance of government in education, and a social service bureaucracy with far-reaching arbitrary powers."

—Roger N. Baldwin.

Russian Writing

Continued from page 14

psychosis, etc.—that American literature is entirely a literature of pathology and murder?

However, let us return to Soviet literature. It is a well-known fact that the Stalin personality cult, which we so emphatically condemn, has left its negative trace on a number of Soviet books. Yet our opponents abroad want to convince ignorant readers that our literature ignores the shortcomings disclosed at the Twentieth Congress of the Soviet Communist Party. And in such cases, when such books do appear, they maintain that these books are ostracized in the USSR. And by the way of illustration they mention such different books as Dudintsev's "Not By Bread Alone" and Pasternak's "Doctor Zhivago."

There would be no need for me to dispel this untruth if the American reader were able to read our books. But under existing circumstances I shall have to disprove this claim.

Just imagine that this were the period of formation of the United States of America. The foremost people of your country are determined to fight to the death against British rule, to establish an independent American state. Tens of thousands of Americans have sacrificed their lives in this fight for a just cause. There are dead and wounded in many families. Those who live are proud that their cause has been successful. They know that their comrades did not give their lives in vain.

AND suddenly a book appears—let us call it "Doctor Smith"—in which the author claims that the dead died and the living struggled in vain, that the pre-Revolutionary (in this case British) culture had been vilified by the American Revolution, that the intelligentsia had become extinct, had perished because of the birth of the United States. What would your attitude be toward such a book? When we indignantly rejected "Doctor Zhivago" we were not only thinking of our fathers who had given their lives to make the Revolution of 1917 possible. We also had in mind the recent war in which we fought for our way of life. We had in mind the tremendous sacrifices which the American people never dreamed of, although they also did their share in fighting Hitlerism.

We felt that this book spat on the graves of our fathers and brothers. This was not criticism, however strong, of shortcomings. The author proclaimed with Olympian detachment and epical placidity that all had been in vain: they should have gone on living as

PRODUCED 2005 BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

they did in old Russia, where the rich and the chosen intelligentsia enjoyed the benefits of civilization while millions upon millions of plain people suffered a life of poverty and were stripped of all rights.

Our recollections are too fresh in our minds. Not all the wounds have been healed as yet. We still have to deny ourselves many a thing in the name of our great goal. There are still too many enemies abroad whetting their knives. We do not want to publish "Doctor Zhivago."

Things are different with Dudintsev's book, which contains some sharply written, intelligent pages that criticize the shortcomings of Soviet life. The public did not like this book because it gives, in our view, a distorted picture of Soviet society. Yet this book did appear in a literary magazine which has a circulation of 150,000 copies. It was then published in a separate edition of several dozens of thousands. Everyone who wanted to could read it.

BUT why do our opponents deny us the right to appraise a book as we think right? I frequently visit the West and I frequently have to argue with men who champion Dudintsev's book. Usually I ask this question, to which I have not yet received a coherent reply:

You publish "Not By Bread Alone" abroad and give it great publicity because it contains, as you say, criticism of Soviet shortcomings and consequently it is objective. I personally do not think this is the best way of getting to know the life of another people—by selecting books mainly directed at criticizing shortcomings. But I shall try to view the matter from your angle. Then why do you not print other Soviet books that also criticize our shortcomings very sharply? This part of my question is a continuation of my discussion of Soviet literature. What books, you might ask? Here are some of them: "Stories and Sketches," by V. Ovechkin, "Stories," by Tendryakov, finally the novel by G. Nikolayeva. Incidentally, a word about this last book.

This big novel by Nikolayeva is entitled "Struggle on the Road." It first appeared in several issues of the magazine *Oktyabr* and then separately in a big edition. In the center of this novel, just as in the other books mentioned, are problems closely connected with the decisions passed by the Twentieth Congress, with the peoples' criticism of the personality cult. This is a forceful and daring book.

But neither Nikolayeva's novel, nor the books by Ovechkin, Tendryakov, or even Troepolski are published or popularized in the United States. I usually express my perplexity in this connection when speaking of Dudintsev's novel, and I repeat it here. What is the explanation?

I have never received a comprehensive reply to my question. But let me try to answer this question for my opponents.

The thing is that the above-mentioned books, despite their lashing criticism of our shortcomings and mistakes, are full of belief in the Soviet system and in future Communism, and full of pride for the great achievements of the Soviet people. This is not to the liking of our ill-wishers. They want only to publish and popularize those books written in the USSR which can be utilized as direct anti-Soviet propaganda.

I should like to mention one more book that stands in a somewhat different genre from the ones mentioned. I have in mind "Cor Serpentis," a philosophical novel by Yefremov. The action takes place in a space ship sometime in the next century.

I have read quite a few fantastic stories about interplanetary flights written both by Soviet and foreign authors. And I am convinced that never before has anything like "Cor Serpentis" been written.

Yefremov does not, like other science fiction writers, focus all his attention on paradoxes or on the technical innovations of the future, although this too is present, of course. Yefremov mainly tries to visualize the psychology of man bound for other worlds and makes certain philosophical generalizations. More than that, he tries to depict a meeting with people from another world. This is perhaps the most daring attempt since H. G. Wells. I refuse to believe, I cannot imagine, that such a book would not be of interest to any thinking man, irrespective of his nationality.

WILL the American reader read such Soviet books (written in recent years and well received here) as B. Polevoi's novel "Deep Hinterland," K. Simonov's "The Living and the Dead," G. Baklanov's "Inch of Land," A. Kahhara's "Tiny Birdie," and C. Aitmatov's "Jamilya"? These are the books that determined the face of Soviet literature in these years. Does the American reader know about these books? No, he does not.

What does one find in Soviet literature? What does it deal with? The experience, unprecedented in the history of mankind, gained in building Communism in the USSR; the formation of the character of the new Soviet man and the tremendous difficulties he meets; complicated social and personal collisions; the joys and sorrows of love; the aim and sense of living; the reclamation of new lands in our country, those on which man the builder has never trodden before; shortcomings, mistakes, and miscalculations which exist and which are inevitable in so great an undertaking as building up a new world; and the mastery of outer space. Soviet literature calls for friendship between people and respect for all nations, big and small. This is a literature antimilitary in its entire essence and spirit.

Those who read untruths about our literature day in and day out, and who have no opportunity to form their own opinion, may not take my word for it. Where, then, is the way out of this state of affairs? There can be only one way out: read our books systematically. But for this to become possible they must be published, at least in the same proportion as we publish modern books by American and other Western authors. And so we are back to where we started.

We can say in advance that not everybody will like our books. Those who look for pathology of human feelings, who gloat over crime, who seek a philosophy of despondency and despair, of propaganda for war as the eternal attribute of humanity, and who seek glorification of race hatred will not find Soviet literature to their liking. This is not to be found in our literature.

But can so many Americans be bloodthirsty? Are there so many people in your country who prefer automatic rifles, daggers, and whiskey to the tools of peaceful labor? Are there so many people with depraved psychology and pathological tastes? This cannot be. The very thought seems blasphemous to me. The great Spanish writer Cervantes once wrote that neither horse, coach, nor buggy could take man to new, unknown worlds faster than a good book. As a matter of fact, I do not think that jet aircraft can compete with a book in this respect either.

We Soviet writers want the American people to read our books. We want to hear their opinion, their criticism, their advice and suggestions. Writing for the people is the tradition in Russian literature. I could add, writing for the peoples.

We writers are not statesmen. We do not conclude treaties, issue visas, or determine tourist quotas, etc., etc. Nevertheless, there is great force in our hands, or rather in our pens. We create books which are a mighty means of bringing people together and getting them to understand one another.

Open the doors for Soviet books to the American reader!

LITERARY I.Q. ANSWERS

Column Two should read: 7, 18, 19, 17, 10, 20, 3, 16, 14, 5, 15, 8, 12, 2, 11, 1, 6, 9, 4, 13.

REPRODUCED 2015 BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

CLASSIFIED

CLASSIFIED ADVERTISEMENTS are accepted for things wanted or unwanted; personal services; literary or publishing offers, unclassified elsewhere; miscellaneous items appealing to a special intelligent clientele; jobs wanted; houses or camps for rent; tutoring; ideas for sale. All advertisements must be consonant with the character of Saturday Review. Rates per insertion 50¢ per word; 10-word minimum. Count 2 extra words for Box and Numbers. Rates for several insertions—52 times 42¢ per word; 26 times 44¢ per word; 13 times 46¢ per word; 6 times 48¢ per word. Full payment must be received seventeen days before publication. We forward all mail received in answer to box numbers and submit postage bills periodically. Mail to be called for at this office will be held 30 days only. Address Classified Department, Saturday Review, 25 West 45 Street, New York 36, N. Y.

LITERARY SERVICES

MANUSCRIPT TYPING. Ambassador Office Service, 17 East 48th Street, NYC. PLaza 5-1127.

TOPS IN TYPING—LEAHEYS, Seven Park Avenue, NYC. MUrray Hill 6-4464.

SEARCH FACTS; story detail; market, product research; establish distributorship; '60-'61, London, England. Fee basis. Resume upon outline your project. E. Covert, Ofc., 554 South 25th Avenue, Omaha.

BOOKS

FICTION. American, British, Continental. Also Americana, Literature, etc. Catalogue free. Wants solicited. PYETELL'S BOOKSHOP, 333 Fifth Avenue, Pelham, New York.

BOOKS. If it is a book you want, write to us. Name it. We will try to get it for you at reasonable prices. Wallace Hill Bookstore, Box 97, Malvern, Arkansas.

THE PAPERBACK BOOKSELLER—"If it's bound in paper—we're bound to have it." 147 Front Street, Hempstead, N.Y. We pay postage.

BRITISH BOOK BARGAINS—all subjects. Catalogues free. Wants solicited. Transbooks, North Wantagh, New York.

GREAT BOOKS, new, unopened, won on television. $250. Box L-410.

FRENCH BOOKS

THE FRENCH BOOKSHOP, 556 Madison Avenue. New York's French bookshop, where French books are sold exclusively. Mail order catalogue 50¢.

BOOKPLATES

FREE CATALOGUE—many beautiful designs. Special designing too. Address BOOKPLATES, Yellow Springs 7, Ohio.

OUT-OF-PRINT

WE CAN FIND THE BOOKS you want. Maximum speed, minimum cost. QUEENS BOOKS, Box 188, Long Island City 4, New York.

FOR CONSISTENTLY LOWER price quotations write ASSOCIATED BOOKHUNTERS, Box L-73.

BIBLIOPHILES: World Wide Research—Immediate Quotations. Try me first! John Friend, Bookfinder, Box 2570, Long Beach 1, California.

NAME THE BOOK—We'll get it! CHICAGO BOOK MART, Chicago Heights, Illinois.

CAN'T GET IT? We'll find it and fast. BEACON HILL BOOKSELLERS, 15 Lindall Place, Boston, Massachusetts.

ANY BOOK LOCATED. Free catalogue. MID-WEST BOOK SERVICE, 4301 Kensington, Detroit 24, Michigan.

YOU NAME IT—WE FIND IT! Prices surprisingly low! INTERNATIONAL BOOKFINDERS, Box 3003-S, Beverly Hills, California.

HARD TO FIND books located through world-wide contacts. BOOK LAND, Box 74561, Los Angeles 4, California.

FOREIGN PERIODICALS

ITALIAN PERIODICALS. Italian Publishers, Times Tower, New York 36.

FRENCH AND POLISH PERIODICALS. European Publishers, 1002 Times Tower, New York 36.

BACK NUMBERS

MAGAZINE SPECIALISTS—stock of 1,200,000 back issues. "BACK NUMBER" Wilkins, Danvers, Mass.

ART

FRIENDLY little Art School in quaint TAXCO. Individual instruction. Inexpensive living and tuition. Bilingual teachers. TAXCO SCHOOL OF ART, Taxco, Guerrero, Mexico. Brochure.

FOR SALE: 400-year-old painting by Bryl. 4½' by 4½'. Needs cleaning and repairs. Never exhibited. Shown by appointment only. Write: "Painting," P.O. Box No. 184, Worthington, Ohio.

REGINALD WESTON PAINTINGS. First one-man show in America, April 2nd-16th. FAR Gallery, 746 Madison, NYC 21 (64th-65th Street).

COMBINE SCENIC WHITE MOUNTAINS vacation with art classes. Oil, watercolor—beginners, advanced students. Brochure. Covered Bridge School of Art, Jackson, New Hampshire.

STUDY ART IN CADAQUES, Spanish Mediterranean fishing village. Free brochure: Narotzky, Corcega 196, Barcelona.

RECORD MART

78 R.P.M. RECORDINGS, 1902—'50, sold. Free list. Collections bought. E. Hirschmann, P.O.B. 155(A), Verona, New Jersey.

FIVE RARE 78 R.P.M. records. Zulu, West Indian, Mongolian, Czechoslovakian, Hawaiian. $4 pp. Folk-Record, 25-29 90th Street, Jackson Heights 69, New York.

FOR THE GOURMET

ENJOY MAINE SEAFOODS, spreads, dips. Ask your dealer for "Atlantic" Brand. A. M. Look Canning, East Machias, Maine.

"MENUS"—ingenious, timesaving booklet. R. Robinson, John Street, Greenwich, Connecticut. $2.00.

DATE-ALMOND DELIGHT, wholegrain dessert, #2 can, $1.50. Maple syrup, quart $3.00. Postpaid. Verne Thomas, Wardsboro 1, Vermont.

HOBBIES

FREE 102 WORLDWIDE Stamp Assortment. Approvals. Send dime for handling. Lincoln Stamp, St. Catharines 661, Ontario.

SCHOOLS

FOLK ARTS, CRAFTS, vacation atmosphere. Adults only. CAMPBELL FOLK SCHOOL, Brasstown, North Carolina.

ADULT EDUCATION

YOUR THINKING ABILITY! Can it be improved? Learn to use the method of science; 5-week course for $5. Monday, April 4th, 8 P.M. or Wednesday, April 6th, 6 P.M. NYSGS, 212 East 44th Street, LOrraine 8-2967 NYC.

PERSONALS

RECORDERS—FINEST MAKES. Largest music selections. Free catalogue. RECORDER CENTER, Amenia, New York.

COATS TO ORDER: men's topcoats, sport jackets; ladies' hooded coats (most flattering), everlasting reefers, in Carol Brown's handsome, hand-woven Irish tweeds. Putney 8, Vermont.

PERSONALS

BRITISH SHOES FOR GENTLEMEN at a fraction of their American retail prices! $10.95 includes duty and import charges. Delivery in ten days from receipt of order. Unconditional money-back guarantee. Write for free illustrated catalogue. Steven Williams, Sr., Ltd., 40 Chatham Road, Short Hills, New Jersey.

OLD LETTERS WANTED. Authors, statesmen, scientists, military leaders, musicians, etc. Correspondence or single items bought and sold. Established 1887. Catalogue on request. Walter R. Benjamin Autographs, 18 East 77th Street, NYC 21. REgent 4-3902.

ANTIQUE POSTERS—CIRCUS, DRAMA, GAY NINETIES. Spanish Toros, etc. List for stamp. Temple, Box S-549. Mason City, Iowa.

REPAIRERS OF THE IRREPARABLE. Restoring China, Glass, Silver, Ivory, Tortoise Shell, etc. Lamps mounted. Hess Repairs, 168 East 33rd St., NYC 16.

JOBS ABROAD FOR TEACHERS, writers, librarians, stenographers, engineers and administrators. Top salaries paid by American and foreign companies, governmental and international organizations. New edition covers over 80 countries. How, when and where to apply, $1.00. Included free, "Student Opportunities Abroad," and "U.S. Summer Jobs for Teachers and Students." Dort, Box 1415-E, Philadelphia 5, Pennsylvania.

27TH WRITERS' CONFERENCE in the Rocky Mountains, July 25th-August 12th. Outstanding staff: Ray B. West, Edwin Peterson, Karl Shapiro, Elizabeth Yates and William Stucky. Write Margaret Robb, Director, University of Colorado, Boulder, Colorado.

WE MOVE YOU WITHOUT TEARS—and economically. Insured household moving, packing, and storage. Vans and station wagons—local, long distance. THE PADDED WAGON, INC., ALgonquin 5-8343 NYC.

YOUR FAMILY TREE. Holland, Genealogies, 53 West Logan Street, Philadelphia 44, Pennsylvania.

RECORDERS (FLUTES) KUENG SWISS import; Dolmetsch, Purcell. $5, $7.50 up! Student Special, Corelli $3.95. Recorder Music, Methods; Sperrhake Harpsichords. Free catalogue, 4-6-A, HARGAIL, 157 West 57th Street, NYC.

MAINE-MINDED? Read "It Happened in Maine." Monthly newsletter of odd occurrences in the Pine Tree State. $3.00 yearly, sample copy 25¢. Tom Lummis, Bay View Road, Saco, Maine.

FRENCH, ITALIAN—SPEAK FLUENTLY. Efficient, Interesting method. PLaza 3-7092 NYC.

OVERSEAS POSITIONS offer free travel, high salaries. Comprehensive "Guide to Employment Abroad" describes all possibilities—administrative, teaching, radio, secretarial, professional, technical, newspaper and other fields. Full details on conditions, requirements, etc. New 1960 edition includes Directory of American Companies in Sixty Countries. $1.00. Hill International Publications, P.O. Box 26-X, Massapequa Park, New York.

CHARMING MADISON SQUARE PARK—Attractive one room studio suites, with full hotel service. MADISON SQUARE HOTEL, 35 Madison Avenue, NYC. Transients from $3.50. Attractive weekly-monthly rates. LExington 2-6880.

AGENT WANTED: CASH COMMISSIONS at once, taking orders for magazines every family wants! No experience needed. For FREE money-making kit, with everything you need, write McGregor Magazine Agency, Dept. 752, Mount Morris, Illinois.

THE AMAZING "ELECTRONIC EDUCATOR" offers exciting new concept in education. Details free. Sleep-Learning Research Association, Box 24-J, Olympia, Washington.

FINE CLASSIC GUITARS AND LUTES: The "HOFNER" from West Germany and the "CORDOBA" from Spain. Shipped on approval. Write for particulars. Locker's —Importers, 21 South 18th Street, Philadelphia 3, Pennsylvania.

TOP CASH PAID for letters and documents of famous people. Immediate decision! Immediate payment. Ask TODAY for free brochure, "How To Sell Your Autographs." Catalogues issued. Charles R. Hamilton, 25 East 53rd Street, NYC 22, Eldorado 5-3464-5-6.

THREE PLAYWRITING AWARDS. Register with Dramatists' Alliance, Stanford University, California.

PRODUCED 2005 BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

PERSONALS

"GO!"—UNSURPASSED STRATEGIC GAME. A lifetime of pleasure—$5.50 postpaid. Classic Games, Dept. S1, 2481 Davidson Avenue, NYC 68.

CATS FOR ADOPTION. All sizes, all colors. Free. WAtkins 4-8493 NYC.

RECORDERS, LUTES, VIOLS—Baroque woodwinds and brasses. Write Wayne Anderson, 545 West 111th Street, NYC 25.

PRIVATE FRENCH LESSONS at your home. Write to French Tutoring Service, 550 Fifth Avenue, New York 36 or call PLaza 7-3638.

DICTIONARY EDITOR WANTED. Experienced only. No free lance. Resume to Box L-56.

BETWEEN ENGAGEMENTS? Do you type? Know stenography, bookkeeping—any office machines? Want temporary jobs in Manhattan? Call the experts and start collecting those checks once a week! AA Accredited Service, OXford 7-1145, Room 3018, at 60 East 42nd Street.

YOUNG HOUSEWIFE, indexing experience, seeks free lance work. Box L-352.

YALE GRADUATE seeks summer tutoring position in Visual Arts and Spanish. Box L-314.

COURT REPORTER 16 years, female, 38, medical, engineering, scientific vocabulary. French needs expanding. Prefer France; consider Spain, Portugal, Switzerland. Box L-168.

WELL-TRAVELED, intelligent, creative young lady, 28, desires foreign travel position—preferably Europe, India, Africa. Secretarial, public relations, writing skills. Adaptable. Excellent references. Box L-397.

LIBRARIAN, man, M.S., university, special library experience, seeks position. Box L-403.

OLE! TOREADORES! Your name printed on magnificent Bullfight Poster only $2.98. Details Free. RAMCO PRODUCTIONS, P.O. Box 25, Alhambra, California.

RETIRING PROFESSIONAL authoress available September as social director or house mother for college needs. Box L-434.

GRADUATE STUDENT, 25, child study degree and experience, desires summer governess position, preferably with travel. References exchanged. Box L-415.

CHAMBER MUSIC for teen-agers. July 3rd-August 14th. Strings, woodwinds, piano. Private instruction. Frequent attendance Tanglewood, other cultural events. MERRYWOOD, Lenox, Massachusetts.

WANTED: SINGLE MAN, thirtyish, desiring inexpensive summer on Cape Cod. Part-time work with older couple in gift shop. Box L-417.

BRANDEIS PSYCHOLOGY major care children family traveling abroad. Box L-449.

PUBLICITY DIRECTOR, liberal arts college, former newspaperman seeking post in, near city. Single, B.A., M.S. Box L-419.

MOTHER TAKE CHARGE motherless home; west, southwest. Offer must welcome two schoolboys. Box L-422.

GENUINE HARRIS TWEED tailored to measure by Scotland's finest tailor at prices unbelievably low. Handwoven from pure Scottish wool. Suits, topcoats, jackets, for men and women. Send for patterns. HOUSE OF THE UNUSUAL, 607 Market Street, San Francisco.

TWO FUTURE college freshmen, 17 years, desire summer employment abroad or resort. Box L-447.

EXPERIENCED SECRETARY wants free lance work by job or hour, evening and weekends. NYC. Box L-424.

IMMACULATELY ERASED recording tape. 1200', $1.00 plus 15¢ postage per reel. Excellent quality. JEM, Box 426, Flushing 52, New York.

SEEKING another vacationing secretary share auto expense to Rockies. May. Box L-441.

MALE, 21, graduate in Art/Art History desires summer opportunity to use this training. Box L-425.

PERSONALS

EDITORIAL ASSISTANT, 25, presently with leading educational institution, seeks writing, publications work overseas or NYC vicinity. Vet, single. Box L-407.

JUNIOR INSURANCE EXECUTIVE, 32, M.A., seeks publishing, teaching, business opportunity. Box L-426.

WANT SUMMER work with art or children. Susan Moore, Mary Baldwin College, Staunton, Virginia.

CHILDREN'S HOSPITAL nurse available July and August. Child care at home or will travel. Write Miss Marjorie Potter, Eaglebrook School, Deerfield, Massachusetts.

EDUCATED, proficient male wants interesting part-time work few evenings. NYC. Box L-427.

WANTED: OLD CAST IRON and tin horsedrawn toy vehicles. Good original condition. Send photo, description, price. Box L-433.

WHAT IS KNOWLEDGE? Finite Geometry quantizes space and time to elucidate the structure of reality. 16 page booklet $1.00. Jayen Press, 43 Sherman Place, Jersey City, New Jersey.

WRITER, background creative, expository writing; two published novels; eight years teaching college humanities; 39 years old, married; interested creative, significant employment abroad, western U.S. Box L-439.

JAMES DEAN: would appreciate any personal or professional memoirs, correspondence. Box L-442.

YOUNG WOMAN, excellent secretarial skills, social graces, creative, interested summer position Europe. Box L-456.

AN INSPIRING one month course for men and women of all ages. Yoga exercises—dancing lessons. Fokine Studios, 2390 Broadway, NYC. SUsquehanna 7-1872. Call after 1 P.M.

EDITORIAL—RESEARCH—transcription skills available weekends NYC. B.S., M.A. (English). MOnument 2-6875.

APARTMENTS FOR RENT

Furnished

NEW HOPE, Pennsylvania. Studio or apartment. Beautiful setting between river and canal. Privacy. Convenience. VOlunteer 2-2170.

APARTMENTS FOR SUBLET

NEWLY FURNISHED, cool, 4 room Park Avenue apartment. April 27th to August 10th. Reasonable. Box L-457.

OFF LOWER FIFTH AVENUE, April-November, 2 exceptionally attractive, large, light, high-ceilinged rooms, 8 windows, kitchen, elevator. Asking $225. WAtkins 4-0255 NYC.

NYC, COLUMBIA UNIVERSITY vicinity, elegantly furnished 6 rooms, light, dishwasher, 13 months starting July. $240. Box L-396.

APARTMENTS WANTED

YOU VACATION, we study museums. Family would like sort of furnished apartment occupants might hesitate to sublet. Ideally: 3 bedrooms, Manhattan, mid-July to mid-August. Dusenbury, WOrth 4-3060.

PROPERTY FOR SALE OR LEASE

WEST DUMMERSTON, Vermont. For sale or lease. Camp suitable for children or adults. Beautiful situation. 150 acres, swimming pool, remodeled farm buildings, cottages. Capacity, 45. Box L-129.

BUSINESS OPPORTUNITIES

RESTAURANT in White Mountains region of New Hampshire. Seats 75, liquor license, seven motel-type lodges plus owner's apartment. Large gift shop. 41½ acres river front land for further development. Adjacent to ski areas. Price $25,000. Box L-399.

HOUSES AVAILABLE

For Sale

WANT PEACE AND QUIET plus beautiful trees? Ideal summer retreat foothills of Berkshires, 80 miles from NYC. All modern conveniences. House and 3 acres under $15,000. Box L-323.

FURNISHED HOUSE, Chocorua Lake, New Hampshire, living room 48 x 30, dining room 36 x 18, 4 fireplaces, 8 bedrooms, 4 baths. Tennis court. 9 acres. Owner, Box 148, Conway, New Hampshire.

UNUSUAL PROPERTIES in southern Vermont. Homes, businesses, acreage. Wide price range. Miriam Bone, Broker, 15 Charlton, NYC 14, ALgonquin 5-6791.

NEW MILFORD, Connecticut. 900' elevation, wild, secluded, protected, modernized Colonial, circa 1790. Dining room 28' x 17'. Asking $30,000. Summer rental possible. Also have magnificent land adjoining, building site, $6,000. On Route 7, near Lake Candlewood, woodworking business, cement block building plus land, price open. Any or all for sale great sacrifice. Extraordinary circumstances force us to leave New England. We may have another possible summer rental Martha's Vineyard. Box L-438.

UNUSUAL, architect designed house, 25 miles from Honolulu. $38,000. Box L-435.

SMALL HOUSE in Essex Town. Structurally sound, suitable for living quarters and a small business. 3 rooms with kitchen on first floor. Second floor, 3 bedrooms and bath. Carport. Good view of Connecticut River. Price $17,000. The Sparre Agency, Inc., Essex, Connecticut, SOuth 7-8289.

FURNISHED early American with historic details. Excellent improvements. In village near Dartmouth. $20,000 or best offer. Mary Glover, Thetford Center, Vermont.

SOUTHERN VERMONT: Farmhouse, 6 rooms, bath, oil burner, wainscots, wide boards, 20 acres, stream. $13,700. SNARE-PARSONS, Dorset, Vermont.

A BUBBLING BROOK edges property of a delightfully remodeled 6 room home. Living room 30 x 22, fireplace, pine-paneled dining room. ½ acre. $12,500. The Kramer Agency, Great Barrington, Massachusetts.

UNUSUALLY ATTRACTIVE, unique Westchester County home, converted from building formerly part of large estate, 45 minutes from mid-Manhattan. Beautifully planted grounds; two terraces. Large rooms with outside exits, 33' living room with balcony and large fieldstone fireplace. 3 bedrooms, 3 baths, sun parlor with fireplace. $39,500. Box 74, Hartsdale, New York.

For Rent

VERMONT: View, seclusion for writer's family. $130 month. Box L-21.

For Summer Rental

FAIRFIELD COUNTY, CONNECTICUT, seashore town. Comfortable, furnished home—4 bedrooms, 2 baths, dishwasher, washing machine, dryer. Studio, children's playhouse. Beach privileges. NYC commuting. July, August, $500 per month. Box L-164.

ROCKPORT, MASSACHUSETTS. Charming 3 room house. Screened patio, modern furnishings and facilities. Month or season. Reasonable. Call MOnument 3-4987 NYC, evenings.

SOUTHERN MAINE. Little white farmhouse, ideal vacation spot. Season. Box K-854.

ASPEN. Summer chalet for 4-6 with car, $20 day; top music festival, glorious mountains. Write Everett Millard, 4030 Irving Park, Chicago, Illinois.

LAKE CHAMPLAIN: for rent, modern cottage for six. 40 acres, privacy, 18 foot boat, water skis, canoe, 2 saddle horses. July and August. $1,500. John Maeck, M.D., Woodcrest Lane, Burlington, Vermont.

CAPE COD, Barnstable. Idyllic cottage, July $400. YUkon 8-8123 NYC, Box L-372.

2 BEDROOM APARTMENT; also 12 room house. All conveniences. Geoffrey Torney, Owls Head, Maine.

UNSURPASSABLE location. Modern, electric, shorefront home. Deer Isle, Maine. Reasonable. Box L-412.

(Continued on page 40)

PRODUCED 2005 BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

CLASSIFIED

(Continued from page 39)

CAMPS

LITTLE TIMBER CAMP in the Catskills. Coed, 5 to 12, all land and water sports, crafts, trips pioneering, ACA approved. Mature staff. Full or part season. Eight weeks $425. Write Blackman, 2961 Shore Parkway, Brooklyn, New York. TWining 1-3066-7.

TENNIS—PROFESSIONAL INSTRUCTION. 6 instructors, 4 hours instruction and practice daily. Participation in Middle States tournaments. Coeducational, 10—16. Limit 50 boarders. Location—Westtown School campus—600 acres, lake, pool, gym, 19 courts. Neil and Deborah Welsh Chase, Chase Tennis Center, Westtown, Pennsylvania

TEEPEE. Coed, 6-12 years. Relaxed, fun-loving camp with lots of music and folklore of different nations. We swim and hike, ride our own horses; farm chores, planting; and of course baseball! 35 children on 150 beautiful Vermont acres. Julian and Erna Otten, 547 Riverside Drive, NYC 27, MOnument 2-3944.

ADIRONDACK WOODCRAFT CAMPS. 35th year. Boys 7-18. 5 age groups. Near Old Forge. William Abbott, Box 2387, Fayetteville, New York.

WYNAKEE—Dorset, Vermont. Coed 5-14. Creative Folk Arts-Crafts. Indian lore. Trips. Morgan horses. Sports. Special care younger campers. Ideal facilities. Mr. and Mrs. Kuhrt S. Wieneke, Dorset, Vermont.

VACATIONS

THE EARLY WORD GETS THE ROOM. Small Inn, large (as outdoors) summer vacation. Booklet D ? THE ISLAND INN, Monhegan Island, Maine.

THE LOG HOUSE, THIRTEENTH LAKE, North River, New York. 2,100 ft. altitude. 600 acres midst Adirondack Forest Preserve. "We didn't think there was a place left like this!" Cottages. Meals varied and best. The Tibbits.

WINHALL MOUNTAIN LODGE—Retreat for gourmets. Restful. Scenic. Delightfully informal. Folder. Manchester, Vermont.

INFLATION is here. Most for your vacation dollar. All-inclusive rate. We are not subsidized. 25 miles from Yellowstone Park. Write Ox Yoke Ranch, Emigrant, Montana.

PEMAQUID SEMINAR: Stimulating and informal vacations in Maine. Discussions, Writers' Workshop, lectures. For 1960 pamphlet write: Box 386, Damariscotta, Maine.

SAN FRANCISCO ON A BUDGET? Charming, centrally located. Hotel Beresford, 635 Sutter Street.

GREEN SHADOWS INN, OLD LYME, Connecticut. Open all year.

MEXICO CITY home. Monthly, weekly accommodations. Reservations necessary. Isabel Carbajal, Rio Amoy 17, Mexico 5, D.F.

BLUEBERRY HILL! Pussywillows! Lucullan food. Nothing whatever to do. Brandon, Vermont.

SPRING on farms and hotels welcoming children. Call LOrraine 8-0700 NYC.

FOR THOSE WHO want every facility and service, plus the tranquillity of beach life, write The Fields for literature about their Colony Beach Club Resort, Longboat Key, Sarasota, Florida. Phone FUlton 8-2131.

COLONIAL CHARM midst wooded Litchfield Hills. Trout stream. Casual, intimate; luscious food. Swimming pool—horses, golf, lake nearby. Country auctions, summer theatre. LEWIS & MARY FISHER, Bantam, Connecticut.

OGUNQUIT. AAA. Relax by the sea at one of New England's foremost and largest resort hotels. Beautiful grounds, lovely gardens. Exceptional meals. June to September. Lookout Hotel, Ogunquit 21, Maine.

LAKE ST. CATHERINE INN, Poultney, Vermont. Magnificent panoramic lake. Fishing, boats, swimming, sports. Continental cuisine. May-September. Fred and Pauline Rosen.

HOLIDAY HOUSE, CASTINE, MAINE. Waterfront hotel, private bathrooms. Request colored brochure.

VACATIONS

SEASHORE VACATION? Christian Fellowship! Be a Miramar guest July 30th-Labor Day. Alcoholic beverages banned. Episcopal Church Center, Bellevue Avenue. Newport, Rhode Island.

IVES LAKE, in the heart of the Huron Mountains. Catch a Rainbow, hunt a mushroom, read a book, bring the kids. Write Howard Paul, Big Bay, Michigan.

THE BROOKFIELD CRAFT CENTER offers you a craft vacation working with top ranking instructors. Delightful surroundings. Brochure ready April 1st. Brookfield, Connecticut.

EGGEMOGGIN, THE RESORT FOR ALL THE FAMILY. Private island in Casco Bay, Maine. Seclusion, relaxation, recreation, boat trips, fine food. Special children's rates. Booklet. O.S. Yale, Box 27, Yarmouth, Maine.

RESERVATIONS NOW for June 24th opening: Apple-Row Inn, Standish, Maine—no resort, but delectable meals, lakeside acres . . . and horses to ride.

READY TO RELAX and enjoy Spring on eastern shore of Chesapeake Bay? Land of pleasant living, 150 acre farm, family style meals. American plan $45.00-$50.00, $8.00-$9.00. Harpers, The Pasadena, Royal Oak, Maryland.

OGUNQUIT. Famous summer vacation center, smooth, uncrowded beaches, numerous activities. Artists' colony, summer theatre, shopping center, deep-sea fishing, golf, movies. Hotels, guest houses, motels, cottages, restaurants, tea rooms. For information write Information Bureau, Ogunquit 15, Maine.

THE FALES. 500 acres woodland beauty. Excellent food. Williamstown, Massachusetts.

HOLIDAY HOME EXCHANGE BUREAU will arrange between reputable approved people. Write, 813 Inwood Court, Grants, New Mexico.

PISGAH FOREST INN. Mountain-top rustic inn, forest-game preserve. Foot trails, beautiful laurel, rhododendron. Log fires, delicious food, friendly hosts. Restful, invigorating. May through October. Box 433, Route 1, Candler, North Carolina.

PICTURE-BOOK VILLAGE off beaten path. Relaxing historic Inn. Small-town events. Pool, 5 acres grounds, brook. Folder. The Tavern, Grafton, Vermont.

WATERVILLE INN—Complete mountain resort in secluded Waterville Valley, surrounded by White Mountain National Forest. For nearly a century a resort unchanged in its essential character. Comfortable inn, private golf course, swimming pool, tennis court, miles of walking and climbing trails. Write for color folder. Advance reservations requested. Waterville Valley, Campton P.O., New Hampshire.

MAINE'S VACATION ISLAND, de luxe housekeeping cottages for rent, $50-$70 weekly. Lloyd Pendleton, Islesboro, Maine.

TRAVEL

EUROPE. 1960 Tours: 50—63 days in Europe. 15—18 countries, $1,245—$1,398. Oberammergau Passion Play included. Write directly: Prof. L. Knecht, KNIGHT TOURS (S-R), Box 350, Northfield, Minnesota.

CHARMING GRAMERCY PARK—Attractive singles and doubles. Newly decorated. PARKSIDE HOTEL, 18 Gramercy Park South, NYC. Transients from $3.50. Moderate weekly-monthly rates. GRamercy 5-6000.

EASTERN EUROPE ADVENTURE. Plan now to join an American group for summer tour featuring Yugoslavia, Dalmatian Coast Cruise, Bulgaria, Roumania, Russia, White Russia, Ukraine, Crimea, Black Sea, Poland, Czechoslovakia, Austria, Germany, Oberammergau Passion Play, East and West Berlin. See your Travel Agent for folders or write Maupintour, 400 Madison Avenue, New York City.

MEXICO EXPENSIVE? Only to the uninformed. The Posada Tepozteco in Tepoztlan (Primitive Aztec Mountain Village) and Posada Arcadia in Cuernavaca (Famous Resort City of Homes) offer luxurious living from $6.40 with meals. Incomparable climate, gardens, pools, horses, golf, lovely rooms, **excellent** food, American Management. First class bus fare to Mexico City 45¢, Taxco 96¢, Acapulco $2.70. Descriptive Brochure, P.O. Box 219, Cuernavaca, Morelos, Mexico.

EUROPE BOUND? Have fun on your trip, take an Italian ship! **T.V. Irpinia, T.V. Ascania.** Grimaldi Siosa Lines, 44 Whitehall Street, NYC, BOwling Green 9-0962.

TRAVEL

STUDENTS, IT'S PLANNED FOR YOU—A summer abroad with PFE—Month's residence and study at Le Fleuron in Florence or 30 day stay in Paris with 40 hour course of study sponsored by Andre Maurois, Robert Schuman, and Marshal Juin PLUS 30 day student tour—choice of 3 itineraries including USSR. . . . Round trip air transportation—60 days in Europe—$1,375—$1,450. Write for 20 page illustrated brochure. Paris France Europe Association for Study and Travel. 10 East 49th Street. New York 17, New York.

GREAT BOOKS SEMINAR in Europe, conducted by St. John's College. Annapolis, Maryland. June 30th—August 13th. Seven countries. $1,442.50.

SAVE MONEY ON YOUR NEXT TRIP to New York. New York is inexpensive if you don't insist on running with the herd. Stay at the Hotel Paris and use our folder: "New York for Free." All rooms with bath: free swimming pool; family rates. Write to M. L. Walter, Hotel Paris, New York 25.

WHY TRAVEL ALONE? . . . Join a Bachelor Party® Tour for single men and women to Europe, Mexico, Puerto Rico, Nassau, Hawaii and "Around the World"—See your travel agent. BACHELOR PARTY TOURS, INC., Dept. SR 2, 444 Madison Avenue, New York 22, PLaza 8-2433

EXPLORERS' CARAVAN. Travel-camping in West. Boys, girls 14-19. Five programs, 4-7 weeks. National Parks, mountaineering, ranch, sailing. Small groups. Dr. Richard S. Stultz, 965 Lancaster Avenue, Syracuse 10, New York.

AMAZING!!! EUROPE—$195. That's all it costs for unusual delightful summer program at Universities of Madrid, Florence, Vienna or Cannes. Full month July or August includes room, meals, tuition, courses in languages, art, painting, music, dance, etc., sightseeing, many other features. All this for $195!! Low cost extensions to all of Europe and Russia. Educational Travel Association, 590 Fifth Avenue, New York 36.

STUDENTS—Don't rush through Europe. Savor the flavor with SCOPE—YOUTH TRAVELS ABROAD, 1960. Unusual experiences for young people. Coed. Brochure available. Mrs. Judith Sullivan, 147-07 Charter Road, Jamaica 35, New York, OLympia 7-6685.

CONSUL GENERAL of the United States, Joseph Ballantine (retired), fluent in European and Asiatic languages, invites you to join his Fourth Annual 59-Day World Tour, leaving New York by Pan-American Jet July 5th, $3,182. Traveling Eastbound, it may be taken as a 26-day, 10-country tour of Europe, including Passion Play at Oberammergau, $1,553. Alternate departure July 27th, joining at Cairo for Orient, 37 days, $2,670. Limited group. For descriptive brochure, apply now, Box L-384.

AROUND SOUTH AMERICA, July 4th to August 5th. Panama, Quito, Lima, Cuzco, Macchu Pichu, Santiago, Buenos Aires, Montevideo, Sao Paulo, Iguassu Falls, Rio de Janeiro, Brasilia, Caracas. Followed by optional two weeks in Guatemala, Mexico, or the Caribbean area. See all the sights; meet leaders in all countries; lectures and discussions. Leader: DR. HUBERT HERRING, author "Good Neighbors," "A History of Latin America," etc. Address him: 763 Indian Hill Boulevard, Claremont, California.

PASSION PLAY TOUR, 17 days, $838.00. Grand Europe Tour, 60 days, $1,345.00. Travel consultation in all phases of travel. Write: Travel Centre, Plymouth, Michigan.

JAPAN IN AUTUMN $1,695.00 complete. One month. Conducted art and garden tour. Write Oyama, 247 Pearl, Monterey, California.

WHEN YOU'RE IN NEW YORK, the greatest vacation city in the world, stay at Beekman Tower Hotel and make the most of it! Magnificent views . . . delightful accommodations . . . wonderful location. Best of all, you can afford it! Enjoy cocktails in the famous Top o' the Tower Cocktail Lounge (26 stories high in the sky!) and dinner in the Turtle Bay Dining Room. Rates for single rooms with semi-private bath as low as $6.50. Group rates available. If you're driving to New York, write BEEKMAN TOWER HOTEL, 49th Street, at First Avenue (3 Mitchell Place), New York 17, New York for SR map showing how to avoid city traffic.

SPAIN. Two-month tour for high school students. Tutoring. Three-week course at University Santander. $1,270 includes everything. For details write: Maria Cruz Anderson, 67 Orchard Ridge, Chappaqua, New York.

PRODUCED 2005 BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

—*International Rectifier.*

SR/Research

SCIENCE & HUMANITY

DEPARTMENTS: Research in America • Letters to the Science Editor • Personality Portrait XLIX • Science in Books • The Research Frontier

ARTICLES: The Wonders That Await A Micro-Microscope

RESEARCH IN AMERICA

- *SUN BUGGY*
- *SPACE EXPLORER*
- *FRENCH ACCENT*

IN THE DAYS when they built motorcars in the vertical plane, with a roof high enough to allow a gentleman to keep his top hat on while driving, a gentleman who spoke of being driven along by the Sun would have been considered balmy. This may be the reason why a 1912 model of the Baker electric car (see photo above) was chosen to demonstrate the possibility of an auto powered by sunlight.

It happened in Central Park, as so many unlikely things do, and if any further explanation is needed, the time was the unsettled month of March.

Don't go running to your car dealer in expectation of buying one of these fancy vehicles. Not many Bakers are available, and their three-horsepower motors hit a top speed of only twenty miles an hour. Those content to drive at a less mad pace can cruise as far as fifty miles before taking eight to ten hours out to let the Sun charge the batteries.

International Rectifier Corporation, of El Segundo, Calif., is under no illusions of a busy market for the Bell Labs solar cell panel fastened to this buggy's top. But the use of such cells for other applications is increasing, not only in space vehicles but in such Earth-bound matters as salt water conversion, transistorized radio sets, lighthouse and forest beacons, even clocks.

• • •

DR. Mary Steichen Calderone, of Great Neck, Long Island, has taken us to task for what she feels was an unjust omission from our February 6th report on hydrofoils. She points out that we "failed to mention the hydrofoil built by the Rodriquez Cantieri Navali in Messina and operated not only in the Straits of Messina but increasingly in other parts of the world." She says that Grumman was inaccurate in telling us that "the final breakthrough [toward hydrofoils that could cross the Atlantic] came with the lightweight power of gas turbine engines and the strength of aluminum alloys for the hull." The Rodriquez hydrofoil hulls, she tells us, "are certainly aluminum but they are not powered by gas turbine engines. The twenty-ton hydrofoil that will carry sixty passengers at speeds up to forty knots is powered by a 1350 horsepower Mercedes-Benz diesel." Dr. Calderone further advises us that "at the present time this hydrofoil, *The Flying Fish*, is operating between the American and British Virgin Islands" and that the Puerto Rican government is seeking United States Congressional approval for purchase by the commonwealth government of two similar hydrofoils for use in the development of the tourist trade in eastern Puerto Rico.

We want to be fair to *The Flying Fish*. It is doing a job and helping to prove a point. But we still think Grumman was justified in claiming a breakthrough for General Electric's new lightweight turbines. The Grumman hydrofoil we described will have four times the tonnage and will carry nine to sixteen times as many passengers over many times the distance at as much as twice the speed of the hydrofoil now plying the Caribbean.

• • •

IN none of the discussion we have heard or read has there been mention of the deeper significance of the new man-made planet that is now on its way toward the orbit of Venus.

It is the attainment of a reasonable sense of perspective.

For the first time since *Sputnik I*, a major American venture in the exploration of interplanetary space was undertaken without bombast or hysteria.

No sensational objective was invented to justify the $12-$14 million expenditure of tax moneys on *Pioneer V*.

No pretense was made that some incredible new spy or weapon system was involved.

No real or imagined target was set up to be hit.

It wasn't even claimed that *Pioneer V* was going anywhere in particular.

A scientific experiment was initiated with all the risks of possible failure normally attendant on scientific experiments—and that was that, as it ought to be.

Pioneer V was simply going out to look around and report back whatever it might discover.

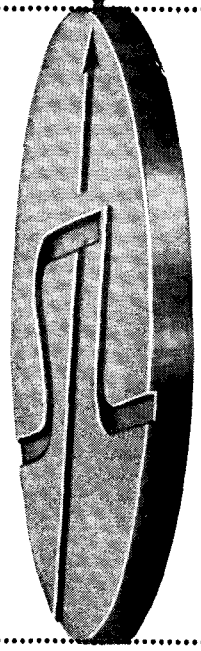
The tiny planet might be able to make itself heard across 20 million miles. It might speak across 50 million miles. Though everyone hoped for the most, the distance wasn't the crucial element. What really mattered was the capability of *Pioneer V*'s radio transmitters to get clear signals back through the magnetic and electrified gas storms that boil the atmosphere of the Sun.

Until intelligent communication can be assured, it is a waste of time, energy and money even to contemplate sending instrumented vehicles—let alone men—on exploratory missions to the actual planets of Venus or Mars. At this stage of the art of telemetry, it is far from certain that interplanetary

PRODUCED 2005 BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Scientists and Engineers

There are two sides to the STL coin



What STL does:

STL is making significant contributions in theoretical analysis, research, experimental development and technical management of advanced ballistic missile and space systems.

STL is responsible for the over-all systems engineering and technical direction of Atlas, Thor, Titan, Minuteman and Communications Satellite portions of the Air Force Ballistic Missile Program. STL conducts advanced space experiments for the Air Force and for such agencies as ARPA and NASA.

What STL offers:

For scientists and engineers with outstanding capabilities, STL offers an opportunity for the application of your skills and talents in advanced areas of space technology.

Please send your resume to:

SPACE TECHNOLOGY LABORATORIES, INC.
P. O. Box 95004
Los Angeles 45, California

forces yet only dimly understood will not destroy some or all of the 4,800 solar cells that catch and transform sunlight into power for *Pioneer V*'s instruments—or that powerful bursts of radiation from the Sun will not silence the broadcasting oscillators or distort the coded information stored on the planetoid's magnetic recording tape. The voyage of *Pioneer V* is therefore only a probing excursion, and no one has called it more.

SINCE others have failed to do so, we want to congratulate the National Aeronautics and Space Administration chief, a scientist, Dr. T. Keith Glennan, on the final bringing about of what he has been striving for ever since he took office: the consideration of space as merely another environment in which appropriate scientific research can be conducted.

It was a stroke of genius to begin the *Pioneer V* experiment on 11 March, when Venus lay on the other side of the Sun, when there was no remotely reasonable possibility for sensationally minded columnists or profit-seeking publicity men of the rocket makers to seize upon and exploit it into a Venutian jaunt. Even the most versatile high-speed computer now in being, given months of time in which to calculate successive orbits of Venus and of *Pioneer V*, would be helpless to say whether the new man-made planet, in swinging around the ellipse it appears to be starting between the orbits of Earth and Venus, will ever encounter Venus no matter how long *Pioneer V* survives in space. The mathematics of such a question are known as "a four body problem." A four body problem has never yet been solved in advance. The pull of the Sun's gravity, the pull of the Earth's gravity, and the pull of Venutian gravity—all must be figured into the equations. The best that astronomers can do at present is to guess that *Pioneer V*'s closest approach to Earth in the next decade will be several hundred thousand miles, and that the chance of the planetoid being captured and incinerated by Earth's atmosphere is about one in 100,000 years. Rather than being closely predictable, *Pioneer V* is very likely to predict through its behavior other heavenly phenomena now tracked only approximately.

These words are written on the afternoon of the day that was two hours old when the new planet drew its millionth mile away from Earth. That is to say, the 26-inch ball had fallen that far behind Earth in its orbit around the Sun. The little planet had also been pulled about 300,000 miles away from Earth toward the Sun, and was falling steadily further in that direction at the rate of roughly 100,000 miles a day. The pull of gravity, which had slowed *Pioneer V*'s progress by eight miles an hour every second at the time of the carrier rocket's burnout, was now petering out to a drag of only one mile an hour every hour.

As the planet's speed picked up and the distance from Earth widened, the smaller of *Pioneer V*'s two radios, a five-watter, spoke less and less distinctly. Canaveral could no longer hear it. Nor could Singapore. Hawaii could barely catch the messages by bringing the transmission down to one pulse per second. But the big radiotelescope at Jodrell Bank near Manchester in England was still collecting a steady stream of numbers which the Space Technology Laboratories in California told us on the telephone "are making sense."

AT the beginning of *Pioneer V*'s voyage it had been expected that the small transmitter could not be depended on much beyond a million miles. But the instrument's response to Princess Margaret's command signal from Manchester as that mark was passed encouraged a belief that effective communication might be continued as far as two million or even three million miles.

Not until signals from the five-watter begin to dim will the second radio, with a power of 150 watts, be called upon to take over the task of speaking across the vaster distances, perhaps as far out as 50 million miles from Earth, the distance of Venus's orbit on 8 August. For the sake of perspective, it is well to keep in mind that the longest previous broadcasts from space were made by *Pioneer IV*, whose messages faded and were lost beyond 407,000 miles.

There are still not enough skilled science writers in this country to fit the pieces of the *Pioneer V* story together as they ought to be put for the clear understanding of American newspaper readers. But what has been reported is altogether pervaded by the saner perspective here emphasized. Nowhere is this new point of view more evident than in references to the fact that the radiotelescope at Jodrell Bank not only sent the message releasing *Pioneer V* from its carrier rocket, but will be the sole source of contact with the new planet in the farther reaches of travel. There were no tedious explanations of why America doesn't have such a powerful instrument. There was instead a tacit acceptance of the notion that the exploration of space is too big a job for any one people.

• • •

IT is not clear whether the French atomic bomb explosion in the Sahara on 13 February was delayed in order not to interfere with Professor

PRODUCED 2005 BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Marcel Schein's hunt for the ultimate particle of matter. Such an inference can be drawn from the tone of University of Chicago reports for January-February 1960. But a literal reading of the text of the reports permits no stronger conclusion than an assurance by the French that the Professor need not fear the Sahara explosion's effects between the dates he had fixed for his experiment. So nothing more may have been involved than confidential French Government confirmation to an American private citizen of time intervals previously fixed for France's entry into "the Atomic Club." In any case, the procedure was unusual and deserves to be noted as one more piece of evidence that nationalism can be tempered in furtherance of man's quest for new knowledge of his environment.

PROFESSOR SCHEIN had genuine cause for worry. The Sahara A-test had been announced for some indefinite time in late January or early February. The Sahara was in the same latitude and the bomb's effects would reach into the same altitude at which the Professor planned to climax a quarter-century of study of the origin and composition of cosmic rays. He had enlisted the help of scientists in fourteen countries—including Britain, Canada, Australia and South Africa—and had managed to have assigned to him the most experienced aircraft carrier (*Valley Forge*) in the United States Navy, along with six destroyers, four hurricane-hunting Super-Constellation planes, and a Rear-Admiral (Rhodam Yarrott McElroy, Jr.) to command the task force. He had bought polyethylene balloons 400 feet tall and 300 feet across to fly from the *Valley Forge* deck to a minimum altitude of 100,000 feet above the waters of the Caribbean, in the equatorial belt where Earth's magnetic field diverts all but the most powerful electrically charged particles as they approach the atmosphere from space beyond. He had arranged with the US Weather Bureau to string a 2,000-mile-long special international observation network from Miami through the West Indies and Jamaica to Yucatan for the purpose of guaranteeing safe take-off of 800-lb. packs of almost pure silver film emulsion in the gondolas of the balloons.

These elaborate preparations would be meaningless if the French fired their A-bomb during the best Caribbean weather. Professor Schein had been able to isolate: 23 January to 5 February. As he wrote to Professor Francis Perrin, of Paris, High Commissioner of the French Atomic Energy Commission, on 18 December, 1959:

"There would be no end to the complications if our plates should be badly fogged by atomic radiations." The *Valley Forge* was due to sail from Norfolk, Va., on Monday morning, 18 January. The night before, there was still no word from Paris. Schein got off the *Valley Forge*, queued behind sailors at a pay telephone booth on the pier, and waited his turn to call in an urgent wire to the French capital. Not until the task force was several days at sea did Schein receive an answering wire signed "Perrin" and saying, "I have passed on information . . . to avoid failure of the forthcoming experiments." After a few more days a letter came. It read: "I believe you can go on without any risks of interference with the experiments you are planning before 5 February."

There was interference with the experiments—but not from the Sahara A-bomb. The first balloon released, called *Skyhook Bravo*, rose straight up 116,500 feet and there was seized by winds twice as strong as those expected. Rather than risk losing the precious emulsion in the Venezuelan jungles, the gondola was cut down by radio 400 miles off the South American coast and parachuted into the path of one of the destroyers. Sharks nibbled around the five-hour exposures on the plates, but weren't hungry enough to wreck the experiment altogether. A second balloon came apart at the seams on the *Valley Forge* deck, and a third was able to rise only to 61,000 feet for twenty-seven hours' more exposure.

Professor Schein himself did not survive the experiment long enough to learn whether cosmic rays come from growing young stars, as he believed. He returned to Chicago, predicted that great things would be discovered in microscopic scrutiny of chunks of the film emulsion during the next two years. Then he went skating, collapsed of a heart attack, and died.

WHATEVER new light the captured cosmic ray tracks may throw on the mystery of the atom's make-up, one thing is certain. The experiment that the French so considerately protected has revealed weather patterns in the high stratosphere strikingly similar to the patterns nearer Earth's surface. University of Chicago meteorology Professor Herbert Riehl, who bossed Schein's weather network, described these newly discovered phenomena as "an ideal meteorological laboratory" due to their freedom from friction from the Earth's surface and from distortion from the Earth's heat. "Up to now we have felt it would be a waste of time to explore the meteorology of the upper stratosphere . . . (but now) perhaps we can go on to find more general laws of weather than we now possess."

—JOHN LEAR,
Science Editor

EXPANDING THE FRONTIERS OF SPACE TECHNOLOGY

● Lockheed Missiles and Space Division has complete capability in more than 40 areas of science and technology – from concept to operation. Diversity of the work is illustrated by such programs as: celestial mechanics; computer research and development; electromagnetic wave propagation and radiation; electronics; the flight sciences; human engineering; hydrodynamics; man in space; materials and processes; applied mathematics; operations research and analysis; ionic, nuclear and plasma propulsion and exotic fuels; sonics; space communications; space medicine; space navigation; and space physics.

Headquarters for the Division are at Sunnyvale, California, on the San Francisco Peninsula, and research and development facilities are in the Stanford Industrial Park in Palo Alto and at Van Nuys in the San Fernando Valley of Los Angeles. Facilities are modern and include the latest technical equipment. A 4,000 acre Division-owned static test base in the Ben Lomond mountains near Santa Cruz provides for all phases of static field test. In addition, flight test facilities are provided at Cape Canaveral, Florida, and Vandenberg AFB, Santa Maria, California.

ENGINEERS & SCIENTISTS

Such programs reach far into the future and deal with unknown and stimulating environments. It is a rewarding future with a company that has an outstanding record of progress and achievement. If you are experienced in any of the above areas, or in related work, we invite your inquiry. Please write: Research and Development Staff, Dept. D-34, 962 W. El Camino Real, Sunnyvale, California. U.S. citizenship or existing Department of Defense clearance required.

Lockheed

MISSILES AND SPACE DIVISION

Systems Manager for the Navy POLARIS FBM; the Air Force AGENA Satellite in the DISCOVERER Program and the MIDAS and SAMOS Satellites; Air Force X-7; and Army KINGFISHER

SUNNYVALE, PALO ALTO, VAN NUYS, SANTA CRUZ, SANTA MARIA, CALIFORNIA
CAPE CANAVERAL, FLORIDA
ALAMOGORDO, NEW MEXICO • HAWAII

PRODUCED 2005 BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

...NEWS IS HAPPENING AT NORTHROP

Ed Ewing
Engineering Specialist
Assigned to Project Mercury
at Radioplane Division,
Northrop Corporation

How New Landing Systems from Radioplane Meet the Demands of High Altitudes, Increased Bail-Out Speeds, and Recovery from Space

by Ed Ewing

In high-speed and high-altitude bail outs, the opening process of the standard personnel parachute is a nylon explosion. The fate of the man depends mainly on the magnitude of this opening shock and his body position when he receives it.

One example: An emergency ejection from a high-speed jet is a sudden thrust into the full blast of the airstream at speeds up to 800 miles per hour—enough to rip open most parachute containers and tear their contents to shreds.

When the U.S. Naval Bureau of Aeronautics outlined its needs and set its requirements for an improved emergency escape system, Radioplane won the contract.

Radioplane took an entirely new approach to develop and design a canopy that would open just slowly enough to reduce shock. Proved in more than 300 qualification jumps, the now-famous "Skysail" opens one ring at a time to take longer than the explosion-like filling of the standard canopy. The resultant reduction in opening shock is between 35 and 50 per cent, the drag coefficient is 20 per cent higher than that attained by other parachutes of equivalent opening force and stability. "Skysail" proves to be the solution to a challenging phase of the jet age.

For the space age, Radioplane is already delivering "Ringsail"—the landing system for America's first man-in-space capsule—NASA's Project Mercury.

As new needs and new challenges arise, the Radioplane scientist, specialist, or engineer is in a position to create new answers. For besides working on landing systems, he studies general re-entry mechanics in programs that widen his scope. Radioplane's outstanding facilities foster an atmosphere in which he is urged to develop new ideas and new techniques in the missile, pilotless aircraft, and space recovery fields.

Current papers by Northrop scientists and engineers include:

"Disintegration Barriers to Extremely High-Speed Space Travel" by Dr. Elliot T. Benedikt. "An Astrovehicle Rendezvous-Guidance Concept" by Norman V. Petersen, Robert Swanson and Leroy Hoover.

For copies of these papers and additional information about Northrop Corporation, write:

NORTHROP CORPORATION
Department S6-1300, P.O. Box 1525
Beverly Hills, California

LETTERS TO THE SCIENCE EDITOR

OH, THAT MOON!

I READ IN YOUR March 5th issue the article titled "The Moon That Refused To Be Eclipsed' with the subtitle: "What is Really Happening in Space."

At the same time I saw the reports about the Winter Olympics.

The trend in both fields is the same.

Do you really regard the Americans as such bad losers that they have to be fed with halftruths and less?

Would it not be healthier for the nation to subject her to some shock treatment by confronting her with the whole truth?

DR. RUDOLF R. DECKWITZ.
New York, N. Y.

YOU IMPLY that the information gained by tracking Vanguard I made it possible to predict the effects of lunar and solar perturbations on the orbit of Explorer VI. This is not so: The effects of the Moon and Sun, as well as Venus, Mars, Jupiter, and Saturn and any other masses whose positions are known, can be calculated in advance in a manner similar to that which allows calculation of the effect of earth's oblateness. Actually these perturbations (and mostly that of the Sun) did combine so as to reduce for a while the perigee of Explorer VI's orbit. As a result it would encounter increased air drag and so have a lifetime shorter than if the perturbations were not present.

The methods for making these predictions have been known since the time of Newton and have only been speeded up by the introduction of large scale digital computers.

Finally, the statement that Explorer VI's orbit is so "unstable" as to be unpredictable is nonsense. What makes the orbit of Explorer VI so difficult to know accurately is that it spends so much of the time so far from the earth that it can't be seen. Since the radio equipment has ceased to announce the whereabouts of the satellite and there is little chance of seeing it or photographing it, there are no check points upon which to hang accurate predictions.

E. M. BOUGHTON.
Palos Verdes Estates, Calif.

JOHN LEAR'S ARTICLE on the Vanguard satellite in the March 5th issue contained an error which should not have been made by anyone familiar with the weapons Germany used in World War II. I refer to the statement at the end of paragraph 4 that the German V-2s buzz-bombed England. The "Buzz-Bomber" was a small pilotless jet-propelled airplane steered by gyroscopic device and heavily loaded with explosives, which descended, on exhaustion of its fuel, as an aerial bomb. The V-2 was a true rocket.

MRS. LOUISE TAYLOR.
Levittown, Pa.

IN YOUR very interesting article on "The Moon That Refused To Be Eclipsed," mention was made of a number of early examinations of "the practical problems involved in circling the Earth with a man-made Moon." One important omission was an article entitled "The Physics of Rockets" by Howard S. Seifert, Mark M. Mills, and Martin Summerfield which appeared in the *American Journal of Physics* in 1947. This was one of the earliest, if not the earliest, articles to appear in the U.S. technical literature which dealt with artificial earth satellites in a formalized manner and presented systematic calculations on just what it would take to do the job. It stimulated work in this area. In fact, Kenneth W. Gatland, one of the co-authors of a 1951 paper on satellite carriers referred to in your article, said last year at the International Astronautical Congress in London that it was the Seifert-Mills-Summerfield article which got the whole thing started.

IRWIN HERSEY
New York, N. Y.

EDITOR'S NOTE: *There were no halftruths in our report on the Vanguard project, as Dr. Degkwitz suspects. He may be confusing space exploration with military missilery. The Russians do have much bigger rockets in their arsenal than have the American armed forces. The reason is simply that in making the first hydrogen bomb they put together a big, awkward device that required a big vehicle to deliver. The American H-bomb was smaller, needed a smaller carrier. When turned to the invasion of interplanetary space, the Russian H-bomb rocket was powerful enough to reach the Moon. But this is technology. SR's Vanguard report was on fundamental scientific discovery, and in this area American experimenters have proved more versatile than the Russians. Example: Russian satellites were first to penetrate the magnetically trapped sea of radiation surrounding Earth; but Dr. James Van Allen of Iowa was the one who set out to find what this radiation was like and how far it extended.*

So far as Explorer VI is concerned, reader Boughton himself explains why the changing orbit of that satellite is impossible to predict very far in advance. The art of orbital calculation is considerably come complex than he supposes, however, and Vanguard I has contributed much to its refinement.

Our sharp-eyed critics seem to have missed one blooper in the Vanguard story. We said the first American satellite was planned to be twenty feet in diameter; the correct figure is twenty inches.

STILL KNOT SO

A KNOT *was* 1.1515303 statute miles per hour . . . [Letters to the Science Editor March 5] But that was before July 1954. On that occasion, according to the 1958 Bowditch (USN Hydrographic Office Publ. No. 9), we officially shortened the nautical mile by some 4 feet. And so, as Bowditch recites on page 958, the knot was pared down to 1.15077715 statute miles per hour.

WILLIAM P. CRAWFORD,
Master Mariner
Crawford Nautical Schools
San Pedro, Calif.

PRODUCED 2005 BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

THE WONDERS THAT AWAIT A MICRO-MICROSCOPE

Including an Encyclopaedia Britannica on a Pinhead

By RICHARD P. FEYNMAN

WHAT I want to talk about is the problem of manipulating and controlling things on a very small scale.

As soon as I mention this, people tell me about miniaturization, and how far it has already progressed. They tell me about electric motors the size of the nail on my small finger. And there is a device on the market, they tell me, with which it is possible to write the Lord's Prayer on the head of a pin.

That device is the most primitive, halting step in the direction I intend to discuss. A staggeringly small world is below. In the year 2000, when people look back at this age, they will wonder why it was not until the year 1960 that anybody began seriously to move in this direction.

Why cannot we write the entire twenty-four volumes of the Encyclopaedia Britannica on the head of a pin?

Let's see what would be involved. The head of a pin is one-sixteenth of an inch across. If we magnify its diameter by 25,000 times, the area of the head of the pin is then equal to the area of all the pages of the Encyclopaedia Britannica. Therefore, all it is necessary to do is to reduce in size all the writing in the Encyclopaedia by 25,000 times. Is that possible?

The eye can distinguish images as small as about 1/120 of an inch, roughly the diameter of one of the little dots on the fine half-tone illustrations in the Encyclopaedia. This, demagnified by 25,000 times, is eighty angstroms (an angstrom is four-billionths of an inch, about half an atom, wide) in diameter—in an ordinary metal, thirty-two atoms across. In other words, one of those dots would contain within its surface between 800 and 1,000 atoms, depending on whether the dot were circular or square. So there is no question that there is enough room on the head of a pin to put all of the Encyclopaedia Britannica.

Let's imagine it is written in raised letters of metal; that is, where the black is in the Encyclopaedia, we have raised letters that are 1/25,000 of their present size. How would we read it?

When it actually is written, they undoubtedly will find a better way than I am about to propose. But to make my point conservatively, I shall just take techniques we know today. We could press the metal of the pinhead into a plastic material and make a mold of it, then peel the plastic off very carefully, evaporate a thin film of silica onto the plastic and then evaporate a thin film of gold at an angle against the silica so that all the little letters will appear clearly, and finally dissolve the plastic away from the silica film in order to look through the film with an electron microscope!

In the electron microscope, great magnification is achieved by sending electrons instead of light through the lenses. The wave length of the electrons is so much smaller than that of visible light that we can see much smaller things.

There is no question that today's electron microscopes would make it easy for us to read a pinhead etched with letters 1/25,000 as big as the type now used in the Encyclopaedia.

The next question is: How do we *write* letters that tiny?

We have no standard technique to do this now. But let me argue that it is not as difficult as it first appears to be. We can reverse the lenses of the electron microscope in order to demagnify rather to magnify. Instead of electrons, we can send a beam of ions through the reversed lenses like a stream of metallic ink that draws finer lines the further it goes. The lines could be written as the lines of light and dark are written now on a TV screen.

Or we could first make, perhaps by some photo process, a screen with holes in it shaped like the letters of the alphabet. Then we would pour ions through these holes and let them deposit themselves on the pinhead.

A simpler way might be this (though I am not sure it would work): We run an optical microscope backwards, focusing the light onto a very small photoelectric screen. Electrons come away from the screen where the light is shining. The electrons are focused down in size by the reversed lenses of the electron microscope to impinge directly on the surface of the pinhead.

If such a beam of electrons is held in place long enough, will it etch away the metal of the pin?I don't know. If a metal surface can't be etched that way, there must be some other material with which to coat the pin so that electrons could make a change we would recognize later.

So much for the Encyclopaedia Britannica on the head of a pin. Now let's consider all the books in the world. The Library of Congress has approximately nine million volumes; the British Museum has five million volumes; there are also five million volumes in the National Library in France. There are many other collections, but duplications occur among them, so let us say there are some twenty-four million books of interest in the world.

IF I were to reduce all of these down to the scale we have been discussing, how much space would they occupy? With twenty-four volumes on one pinhead, we would need a million pinheads, and these can be put in a square of a thousand pins on a side, about three square yards altogether, approximately the area of thirty-five pages of the Encyclopaedia. That is to say, all the information in all the books of interest in the world could be carried around in a pamphlet in your hand—not in code, but as a simple reproduction of the original pictures, engravings, and printed text.

Suppose now, that instead of trying to reproduce the pictures and all the information directly in its present form, we write only the information content of all the world's books in a code of dots and dashes, or something like that, to represent the various letters. There are six or seven "bits" of information in each letter. That is, we need only about six or seven dots or

PRODUCED 2005 BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

dashes for each letter. Now, instead of writing everything, as I did before, on the *surface* of the head of a pin, I am going to use the interior of the pinhead as well.

Let us represent a dot by a small spot of one metal, a dash by an adjacent spot of another metal, and so on. Suppose, to be conservative, that a bit of information is going to require a little cube of atoms 5 x 5 x 5—that is, 125 atoms. If we round this off to 100 atoms for the sake of convenience in calculation, we can estimate how much information we can get *inside* the pinhead by first calculating how many letters there are in the Encyclopaedia and then assuming that each of the twenty-four million books of interest in the world is as big as a volume of the Encyclopaedia. I have figured this out (the total is 1,000,000,000,000,000 bits), and all these twenty-four million books can be written in code inside a cube of material 1/200th of an inch wide—which is the size of the barest piece of dust that can be distinguished by the human eye.

THIS fact—that enormous amounts of information can be carried in an exceedingly small space—is of course well known to biologists. It explains how it could be that, in the tiniest living cell, all of the information for the organization of a complex creature like yourself can be stored. All this information—that the eyes are to be brown, that the hair is to be curly, that there is to be an ability to think, that in the embryo the jawbone should first develop with a little hole in the side so that later a nerve can grow through it, and thousands of other such instructions—is contained in a very tiny fraction of the cell, in long-chain DNA molecules where one bit of data is crammed inside fifty atoms (inside our pinhead, we have room to give one bit two and a half times that much space).

If I were to write in a code, with 5 x 5 x 5 atoms to a bit, could I read it today? For the first time in this speculation of mine, the answer must be "no." The eye of the electron microscope is not quite keen enough. With the greatest care and effort, the smallest image it can make out is ten angstroms in size. We need to sharpen the seeing of the electron microscope by a hundred times. This is not impossible; it is not against the laws of diffraction of the electron. The wave length of the electron in such a microscope is only 1/20 of an angstrom long. So it should be possible to see individual atoms.

What good would it be to see individual atoms distinctly?

What are the most central and fundamental problems of biology today? There are questions like: What happens when you have a mutation? How are proteins synthesized? In photosynthesis, where is the chlorophyll; how is it arranged? What is the relation of the structure of a gene to that of the enzyme it controls?

It would be very easy to answer many such questions if we could see the individual atoms involved.

Make the microscope a hundred times more powerful than it is today, and the atoms will become visible to us.

The practical limitation on the electron microscope's power at present is that the *f*-number of the lenses is only 0.001; we don't have a big enough aperture. I know there are theorems which prove that it is impossible, with axially symmetrical lenses in which the electrical and magnetic fields that focus the electrons are stationary, to produce a bigger *f*-number. Therefore the resolving power at the present time is at its theoretical maximum. But in every theorem there are assumptions. Why must the field be axially symmetrical? Why must the field be stationary? Can't we have pulsed electron beams in electrical and magnetic fields that move up along with the electrons just as the lenses in an optical microscope move with the light? Is there really no way to make the electron microscope more powerful? Or have we simply failed to use our imaginations enough?

The biological example of writing information on a small scale has inspired me to think of something else that should be possible. Biology is not simply writing information; it is *doing something* about it. In a biological system, many of the cells are very active; they manufacture various substances; they walk around; they wiggle; and they do all kinds of marvelous things—all on a very small scale.

LET me remind you of some of the problems of computing machines. In computers we have to store an enormous amount of information. Computing machines are therefore very large; they fill rooms. But they cannot do some of the things that I can do in the bonebox of my head.

If I look at your face I immediately recognize that I have seen it before. There is no machine which, with that speed, can take a picture of a face and say that it is a picture of a man, much less that the man is the same man the machine saw before—unless the picture is exactly the same picture as before.

Everybody who has analyzed the logical theory of computers has come to the conclusion that if computers had millions of times as many computing elements as they now do, they could make such judgments. But with the present size of components, these computers would fill millions of rooms, cost impossible sums of money, and be too big to work anyhow.

Why can't we make smaller computers—and by small, I mean *small*? For instance, the wires should be ten or 100 atoms in diameter, and the circuits should be a few thousand angstroms across.

How can we make devices as small as that? What kind of manufacturing process would we use? One possibility we might consider, since we have talked about writing by putting atoms down in a certain arrangement, would be to evaporate metals or other materials in successive layers until we have a block of exceedingly fine dimensions.

JUST for amusement, I would like to discuss other possibilities. Why can't we manufacture these small computers somewhat like we manufacture the big ones? Why can't we drill holes, cut things, solder things, stamp things out, mold different shapes, all at an infinitesimal level? What are the limitations as to how small a thing has to be before we can no longer mold it? What are the possibilities of small but movable machines?

Consider, for example, an automobile. Ask about the problems of making an infinitesimal machine like it. Suppose, in the particular design of the automobile, we need a certain precision of the parts; we need an accuracy, let's suppose, of 4/10,000 of an inch. If we stay within ten atoms of error, we can reduce the dimensions of an automobile approximately 4,000 times—so that it is one millimeter across. Obviously, if we redesign the car so that it would work with a much larger tolerance, which is not at all impossible, then we could make an even smaller automobile.

In such small machines, the strength of materials is very much greater in proportion. On the other hand, the grain structure of metals would be very annoying at small scale because the material is not homogenous. Plastics and glass and things of an amorphous nature are very much more homogenous, and so we would have to make our machines out of such materials. There are problems associated with the electrical parts of the system. Magnetic properties on a very small scale are not the same as on a large scale. A big magnet made of millions of domains can only be made on a small scale with one domain. The electrical equipment won't simply be scaled down; it has to be redesigned. But I can see no reason why it can't be redesigned to work again.

Lubrication might not be necessary. Bearings could run dry; they wouldn't run hot because heat escapes from such a small device very, very rapidly.

PRODUCED 2005 BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

—*Union Carbide.*

In action above are "slave" hands that inspired Professor Feynman's imagination.

This rapid heat loss would prevent gasoline from exploding, however; so an internal combustion engine of that size is impossible. Other chemical reactions, liberating energy when cold, can be used instead.

What would be the utility of such machines? Who knows?

A friend of mine, Albert R. Hibbs, suggests a very interesting possibility. He says that, although it is a very wild idea, it would be interesting in surgery if we could swallow a surgeon. Inside the blood vessels this mechanical practitioner would go and from there into the heart to "look" around. (Of course the information has to be sent out.) The miniature surgeon finds out which heart valve is the faulty one and takes a little knife and slices that valve out. Other small machines might be permanently incorporated in the body to assist some inadequately functioning organ.

How do we make such a tiny mechanism? I leave that to you. However, let me suggest one weird possibility. In atomic energy plants there are materials and machines which can't be handled directly because of radioactivity. To unscrew nuts and put on bolts and so on, a set of master and slave hands is operated by a set of levers. Most of these devices are made rather simply in that they have a particular cable, like a marionette string, running directly from the controls to the hands. Others use servo motors, so that the connections are electrical rather than mechanical. When the levers are turned, they turn a servo motor, and it changes the electrical currents in the wires, which repositions a motor at the other end and this motor in turn moves the hands.

Now, I want to build much the same device, a master-slave system which operates electrically. But I want the slaves to be one-fourth the scale of the ordinary hand. Aha! So I use the quarter-size hands to manufacture a quarter-size lathe; I manufacture quarter-size tools; and I make, at the one-quarter scale, still another set of hands again relatively one-quarter size. I am now down to one-sixteenth size. You get the principle from there on. It is rather a difficult program, but it is a possibility.

As we go down in size, a number of interesting problems arise. All things do not simply scale down in proportion. Materials stick together by molecular attraction. It would be like this: after we have made a part and have unscrewed the nut from a bolt, the nut isn't going to fall down because the pull of gravity isn't appreciable; it would even be hard to get the nut off the bolt. It would be like those old movies of a man with his hands full of molasses, trying to get rid of a glass of water.

But I am not afraid to consider the final question as to whether, ultimately—in the great future—we can arrange the atoms the way we want; the very *atoms*, all the way down! What would happen if we could arrange the atoms one by one the way we want them?

Up to now, we have been content to dig in the ground to find minerals. We heat them and we do things on a large scale with them, and we hope to get a pure substance with just so much impurity, and so on. But we must always accept some atomic arrangement that nature gives us. We haven't got anything, say, with a "checkerboard" arrangement, with the impure atoms exactly arranged 1,000 angstroms apart, or in some other particular pattern.

What could we do with layered structures with just the right layers? What would the properties of materials be if we could really arrange the atoms the way we want them? They would be very interesting to investigate theoretically. I can't see exactly what would happen, but I can hardly doubt that when we have some *control* of the arrangement of things on a small scale we will get an enormously greater range of possible properties that substances can have, and of different things that we can do.

WHEN we get down to the very, very small world—where, say, electrical circuits have only seven atoms—we encounter completely new opportunities for design. Atoms on a small scale behave like *nothing* on a large scale, for they satisfy the laws of quantum mechanics. So, as we go down and fiddle around with the atoms down there, we are working with different laws, and we can expect to do different things. We can manufacture in different ways.

The principles of physics, as far as I can see, do not speak against the possibility of maneuvering things atom by atom. To try to do this is not to attempt to violate any laws; in principle it is something that can be done; but, in practice, it has not been done because we are too big.

Ultimately, we can do chemical synthesis. A chemist comes to us and says, "Look, I want a molecule that has the atoms arranged thus and so; make me that molecule." The physicist synthesizes the molecule. How? By putting the atoms down where the chemist says. The problems of chemistry and biology can be brought much closer to solution if we develop the ability first to see what we are doing and then to do things on the atomic level—an eventuality which I think cannot be avoided.

In order to get kids interested in this, I propose that someone who has contact with the high schools think of starting a kind of high school competition. A school in Los Angeles could send a pin to a school in New York. On the head of the pin it says, "How's this?" Los Angeles gets the pin back, and in the dot of the "i" in the word "this" it says, "Not so hot."

Richard P. Feynman, professor of physics at California Institute of Technology, first advanced these provocative speculations in an after-dinner speech before the American Physical Society last December. The only record was a tape recording, which Caltech's journal, Engineering and Science, *has reproduced at greater length and in somewhat different phraseology.*

REPRODUCED 2005 BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

PERSONALITY PORTRAIT—XLIX

COMET BEHIND THE KITCHEN; STARS IN THE DINING ROOM

The History of Science Passes Through the House of Dr. C. Doris Hellman, Wife, Mother, Scholar

BETWEEN the dining room and the kitchen of Dr. C. Doris Hellman's apartment on the upper East Side of Manhattan runs a hard worn path that is common to every busy household. It is the road tramped by the woman of the house, bent on feeding her family. But the route at the Hellman place has an unaccustomed turning, with a fork that many of the guests who come to dinner never see. It leads around the kitchen into a small dim-lit grey room with a solitary window, a wash basin in the corner under the window, a battered desk with a low, flat top faced by a swivel chair in the corner opposite, three walls lined from top to bottom with shelves of books ordered in meticulous ranks according to size, and neat arrays of manila folders in cardboard cartons piled two deep at four points on the floor. "This used to be the maid's room when the children were little," she said as we stood in the midst of it. "Now that they've grown, I've made it into an office."

Her straight grey hair, cropped just below the ears, lent a quietly competent professional tone to the word "office." Pride was plain in her voice. It left me unready for her next words. "How the time has flown!" They came out like a sigh. Her big brown eyes were glowing. In them I could almost see her children, Alice and Carol, smiling back at her. "I miss them terribly," she said, and for the next few moments I could think of her only as a mother. I forgot completely that this hidden little room had become an office because this warm and vital woman had undertaken to lead a unique attempt to bring science back into society by way of the bridge of the history of science.

Many of the volumes on the shelves around us were science history classics. They were more than collector's items. They were source material for Dr. Hellman's researches. The cardboard boxes on the floor were filled with copies of documents pertinent to the life of Johannes Kepler (the great seventeenth century mathematician whose biography she recently translated from German into English) and with chronological notes of scores of historical observations that may in time become a book on the explosive "new star" of 1572.

"I like to spread my papers out on the top of the desk," she said, as though no other thought had interrupted our inspection of the office. "When the desk gets too small, I carry them into the dining room and spread them out on the table."

It was at this table, polished mirror-bright and glinting now with sun reflected by the silver candlesticks, that Dr. Hellman's lawyer-husband, Morton Pepper, at her instigation two years ago this month of April drew up letters of incorporation for the George Sarton Memorial Foundation.

The late George Sarton undoubtedly was the greatest historian of science of modern times. He spent his life in one long literary construction project to link science and the humanities. Before he died in 1956 he converted many disciples to his belief that this bridge is "the main cultural need" of the contemporary world. Two of the believers live under the Hellman roof. One is lawyer Pepper, who studied history at Harvard (where Sarton taught) and subsequently practiced in his own home Sarton's dictum that everyone who is not a scientist should have some interest in science just as every scientist should be an intelligently active citizen. The other believer is, of course, Mr. Pepper's wife, who was one of Sarton's proteges.

To say that Doris Hellman studied under Sarton would miss the point. She had a desk in his office at Harvard's Widener Library in 1930-31, and directly felt the pull of his demanding mind. He taught her to be precise, to read every available reference and footnote, to track down original documents, to learn foreign languages in order to use them in translation, and above all to be infinitely patient. He showed her how curiosity about one seemingly small point can illuminate a whole era of time, and, indeed, she spent twelve years in the pursuit of the answer to one of his questions: "Why are there so many more references to the comet of 1577 than to any other comet of that century?"

That comet, she ultimately discovered (and reported in a book, "The Comet of 1577") was one of the turning points in human thought. It helped to persuade reflective men that the heavens were not immutable—as had been supposed for 2,000 years—and that the Earth moved about the Sun instead of being itself the center of the Sun's life-giving ministrations.

For all his brilliance as a scholar, it was as a man that Sarton made the deepest impressions. Doris Hellman first went to see him while she was a Vassar senior. Already his name was a household word, especially in the household of her father, a gynecologist, Dr. Alfred Hellman, who had built up an impressive private library of books on the history of medicine. Given such a background, her teachers at Horace Mann High School (at that time coeducational) were not surprised to find her interested in mathematics, and they added their encouragement to her parents' gifts of first editions of Euclid in English and Italian. At Vassar, Doris branched out from mathematics into astronomy, and in one of her courses wrote such a pithy paper on the eighteenth century pendulum clock maker, George Graham, that it was quoted extensively in *Nature*.

IN HER last year at Vassar, Doris knew she wanted to go on into graduate study of the history of science. But where and how? Science was not yet a recognized specialty in the field of history. No path had been laid toward her objective. So she went to Sarton to ask his advice. "Girls didn't make trips to Cambridge in those days without their mothers," she recalls. Her mother was even more astonished than the daughter was when the famous man interceded for Doris at Radcliffe. On the strength of his endorsement, she was allowed to try for the first M.A. degree there in the history of science.

Long before then, Sarton had started the journal *Isis*. Now he opened its pages to his determined apprentice, who wrote several articles on Thomas Jefferson's introduction of science into the governmental machinery of the Thirteen Colonies, and on the unpublished diary of Edward Jenner, discoverer of smallpox vaccine. Even more

PRODUCED 2005 BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

—U.S. Passport

Dr. C. Doris Hellman.

important, he asked her that question about the comet of 1577.

Doris Hellman married Morton Pepper in 1933, at once creating an editorial team and a life partnership in human contentment. From the beginnig, he read her papers with the eye of a friendly critic. In turn, she reared his children with a fidelity rare among careerists. One year after the wedding, she published a bibliography of her findings about the comet that had aroused Sarton's curiosity, and from then on her research and writing were fitted into whatever fragments of time could conscientiously be spared from the care of Alice (born in 1936) and Carol (born 1940). Throughout that period, the maid's room had a full-time occupant, but except for two *Isis* reviews that were born between Alice and Carol, reports on the history of science ceased appearing under the Hellman name until Alice was 7 years old and Carol was 3. Then the silence was broken with a thesis for a Ph.D. at Columbia University. And the next year (1944) it was published by Columbia University Press—"The Comet of 1577."

Alice was 12 and Carol was 8 when their mother's next pieces reached the pages of *Isis*. One of these was a review of the German historian Max Caspar's biography of Kepler, and it brought a request from the Abelard-Schuman publishing house for a translation into English. Ten years later, this work is only now reaching American bookshops. Complications in its preparation were due not only to the demands of parenthood and of social affairs related to her husband's charity work, but to new responsibilities inherent in resurgence of Dr. Hellman's career as growth of the children freed her.

Attendance at meetings of the New York chapter of the History of Science Society had been a regular event in her life even in the busiest times. In 1950, a fellow society member, Roland Partridge, of the Pratt Institute faculty in Brooklyn, suggested that the school needed a course in the history of science to strengthen the shift Pratt then was making from a certificate college to a degree-granting institution. Dr. Hellman agreed to teach an experimental course that summer. She has been there ever since as a professorial lecturer, arguing steadily for the need for every educated person to understand the impact of science on society.

Teaching was one way for Doris Hellman to pay back her debt to George Sarton. But it was not enough. Two years after his death in 1956, she gathered around her dining room table such science historians as I. E. Drabkin, Karl Boyer, William Starr and Brooke Hindle. With her husband's legal help, they drafted the papers for incorporation of the non-profit George Sarton Memorial Foundation. Chauncey Leake, current president of the American Association for the Advancement of Science, accepted appointment as the Foundation's first head; Sarton's daughter, May, the poet, honored the group as vice president; Morton Pepper shouldered the onerous details of secretary, and Doris Hellman tried to pretend that the job had been done by everyone else but her.

Only the future can tell how successful the Foundation will be in accomplishing its purpose. Much more money is required than is yet in sight. The cost of publishing *Isis*, though shared with the History of Science Society, is a regular drain on the small contributions that have come in. But the first George Sarton lecture, planned for the 1960 annual meeting of the AAAS, is certain to stir new interest; and Doris Hellman will talk about the wonderful possibilities of history of science fellowships wherever she goes.

THE places she goes to grow in importance as she emerges more and more from the role of motherhood. A few months ago, she was elected a Fellow of the Royal Astronomical Society in England. She is secretary of and one of the chief planners for the next International Congress of the Union of Historians and Philosophers of Science at Cornell University in 1962. Her researches on the *nova* of 1572—which she now ranks alongside the 1577 comet in the revolution in thought that led to acceptance of modern ideas about the solar system—took her into Europe's major libraries from Italy to Scandinavia on a post-doctoral fellowship of the National Science Foundation during five months of last year.

All these travels begin and end on the hard worn path between the Hellman dining room and kitchen.

—ROBERTA SILMAN.

Introduction to Space

By Lee A. DuBridge

A compact, informative review of what man has done to meet the challenges of the Space Age. Dr. DuBridge, President of the California Institute of Technology, defines the nature of a satellite and shows how it works, what it can do, and what skills are needed to make it operate. He also describes the "personalities" of our immediate space neighbors and separates our proven knowledge about the solar system from our educated guesses. 25 photographs.

$2.50 at all bookstores

COLUMBIA University Press
publishers of the
Columbia Encyclopedia

"The realities of the Atomic Age spelled out in language plain enough for anyone to understand... This sober survey is encouraging; it gives us a more hopeful outlook on the possibilities for solutions."

—ADLAI E. STEVENSON

FALLOUT

A frank, factual, readable appraisal of superbombs, strontium-90 and survival

Edited by JOHN M. FOWLER
$5.50

Sculpture by David Hare

BASIC BOOKS, PUBLISHERS

PRODUCED 2005 BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

SCIENCE IN BOOKS

THE SMELL OF APRIL

It Is Too Soft For Words To Describe

OUR BODIES still cry for salt and well they may, for the salinity of human blood must still be maintained to correspond to that degree of salinity sea water had at the time life first left the sea to live upon the land. Moreover, we are linked, anciently, nosewise to the "fierce old Mother." . . . Each tiny cilium [hair on the exposed end of a nerve cell] reaching up out of the nasal plates still demands a watery medium in which to transmute odor molecules into electrical impulses which become sensory data. "The human nose, and that of other land vertebrates, can smell a substance only if it is volatile and soluble in fat solvents," say Arthur D. Hasler and James A. Larsen. "In the final analysis smell is always aquatic, for a substance is not smelled until it passes into solution in the mucous film of the nasal passages. For fishes, of course, the odors are already in solution in their watery environment."

With the becoming frankness of scientists but with a truly poetic wonder, or sensation of illimitability, the problem presented by the olfactive sense is admitted by Carey P. McCord and William D. Witheridge in their superior summary of investigations of the physiology of the nose, "Odors, Physiology and Control":

"The mechanism through which a tiny area within the nasal fossae is able to receive an unlimited number of dissimilar odor stimuli, sometimes from remote distances and sometimes in dilutions as weak as one part in billions of air, constitutes a prime biologic mystery. In the case of eye and ear, the perceiving apparatus is confronted only with a limited and precise range of vibration. Exactness attends these two sensations. For taste only four primary stimuli are involved. Not so for odors. The varieties of odor stimuli requiring appraisal and identification are to be reckoned by the tens of thousands, and possibly the capacity in humans even reaches to hundreds of thousands. . . . Day by day new odors are appearing, all of which are immediately accepted within the seemingly unlimited categories of the olfactory brain. . ."

I queried a friend of mine, Dr. John G. Sinclair, professor of anatomy at the University of Texas, about how we ever came into possession of such an inconceivable mechanism. He replied: "The striking thing to me about the olfactory system is its unique structure and development. It is the first of the receptor systems [the five senses] to become a dominant guide to movement of the entire body in the vertebrates. For this reason the cerebral hemispheres were developed out of the roof of the olfactory lobe. This has the further consequence that as the hemispheres became complicated this ancient nose-brain became spread all over the base of the brain and coiled inside it as the fornix-hippocampus system of fibers. Today it is called the paleocortex but in fishes it is the rhinencephalon [Greek for "nose-brain"]. The reason for this elective position is the fact that olfaction is the first distance receptor which could cooperate effectively in a watery medium like the ocean. . ."

AT long last a minute fragment of the life that emerged from the ocean took to the trees. Smelling is not nearly so important for the survival of an arboreal creature as hearing and vision. Odor molecules, without which smelling by any nose yet discovered is impossible, are relatively heavy and sink to the lower levels of air. Therefore the areas of the brain given over to reception and interpretation of auditory and visual impressions developed at the expense of the olfactory.

Even though the suppositious progenitors of man finally returned to ground-dwelling, they refused to go again on all fours, hence never regained the nasal acuity of the shrew or anything approaching it. . . .

The evolution of man's exterior nose has been diverted from the line taken in mammals, generally, by his assumption of an upright position, by standing on his hind legs. The inside structure of the organ has become one of those distorted features anatomists refer to as a "disharmony," for its failure to cooperate smoothly with other parts of the human machine. . .

"Compare a man's nose with that of any other mammal, say a horse, dog, or a rabbit," suggests the noted English scientist, J. B. S. Haldane. "The air going into and out of its lungs has a nearly straight run from the lungs in and out through the nose. If there is a bend it is where the head joins the neck. In man each nostril takes a hairpin bend, with very awkward results. When a dog sneezes, the air gets a straight run, and he can clear his nose. A human sneeze cannot get through the narrow and twisted nostrils, so when we sneeze we have to open our mouths."

"This twisting of the nostrils," explains Haldane, "is a result of the great growth of the brain, which has distorted our heads from the usual mammalian shape. More accurately, we have kept a type of head which is common in embryo mammals, but which is generally liquidated long before birth. . . ."

THE embryologist, keeping track of the transformations of the nose in the human fetus, says it is fishlike to begin with, becoming, as the months pass, gradually reptilian. Finally, just before birth, he concedes it a fairly human outline. He informs us that during gestation, the nose and other distinctive organs take on successively forms which were standard for each one, respectively, during the unimaginably long course of evolution. . . .

In speaking of noses, the speaker is presently stumped for want of words. One thing stinks, another is fragrant; but words for the range and varieties of stinks and fragrances are hard to find. Languages, ancient and modern, admit failure in attempting to attach names to specific odors, and hence take refuge in comparisons and analogies to cover the deficiency. One thing "smells like" something else, and that "something" smells like another "something." John (Rev. 5:8) rather caps the climax of this kind of thing: "And when he had taken the book," he says, "the four beasts and the four and twenty elders fell down before the Lamb, having every one of them harps, and golden vials full of *odours, which are the prayers of saints*" (italics supplied). The marginal note in my copy suggests "incense" for "odours," but it comes to the same thing. Even the subtle Greek botanist, Theophrastus [in "Enquiry into Plants"], complained of frustration in this matter 2,200 years ago, diagnosing the trouble but failing to prescribe a remedy.

In like case, but certainly with no such equipment for expressing the inexpressible, I find myself resorting unconsciously to the formula. For I am just in from an early morning ramble through a grove of sycamores. I want

PRODUCED BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

a word for the pleasing odor that still lingers in my nostrils. I search for one. Dictionaries are deficient. Tree books are similarly uncommunicative concerning the only character by which one may identify at a distance the sycamore in the dark.

Except for the tantalizing odor, other features of the tree are fairly easy. I convey some impression of its leaf when I declare that it is expansive, reaching like a spread hand for every ray of sunlight. . . . The crown of the sycamore, unless thwarted in growth, early becomes a cone beautifully proportioned, a yellowish-green spire sighted precisely at the zenith. I can say of its trunk and larger limbs that they are smooth to the touch as human flesh, that they are gray like a silver mist, or like a column of clouded pearl in dusky light, while delicately tinted as if by the green breath of the forest blowing constantly upon them; and that they are ornamented with curling flakes of brown or deeper gray. But for the odor of this lovely tree there is no word, no valid comparison, no intelligible metaphor.

And sucked from out the distant bloom
A breeze began to tremble o'er
The large leaves of the sycamore
And fluctuate all the still perfume.

The usual word-magic falters here for the poet [Shelley] is stretching poetic license out of bounds. There is no such thing conceivable as a "still perfume." Odor molecules are mobile, as are all gaseous emanations. Odors travel even in the stillest air or water. True, the breeze does "fluctuate" them, but they are already in motion. They are never still. They are driven before the wind; but on their own power from point of origin. . . .

INDEED, there seems to be no way of imparting to the unfamiliar nose a hint of what it is like to inhale in early morning or at nightfall this damp, woodsy odor. I say "damp and woodsy" but there are many kinds of woods and at least a dozen different damps out of which some hundreds of different damp, woodsy odors, from that of a cypress swamp, to rain-drenched oak mottes in a hill country of a piny canyon in Colorado. . . . With some unworthy gratification I note that Tennyson fumbles with a "damp woodsy odor," fails, and contents himself with merely describing its effect:

My very heart faints and my whole soul grieves
At the moist rich smell of rotting leaves.

Surely one of the most distinctive of odors thrown out by any flower to draw to it the fertilizing insect is that of our folk-named mountain laurel, or mescal bean (*Sophora secundi-flora*), fairly common in parts of northern Mexico and north in Texas to the El Paso-Texarkana line. It is the kind of odor which close-up "knocks you down" in early spring, especially on the campus of the University of Texas where, coaxed and pampered, the shrub grows in unnatural luxuriance and is pruned and primped-up almost beyond recognition. Twenty thousand students inhale its fragrance while it is in bloom.

I HAVE asked dozens of frequenters of the campus, students and faculty, to name the odor. It is considered "distinctive," "amazing," "overwhelming," "all-pervading"; it "drowns out" the fragrance of the other species blooming at the time; "it is inescapable," "it follows you into the house"; and so on, but none furnished me with a name for it. Its flower is a deep purple, and its leaves are a vivid green, but the plant's most striking characteristic, the character by which it is universally recognized, has no name. Finally, Mrs. A. Caswell Ellis, who has lived near the campus for many years, told me that the mountain laurel at a distance smells like a box of freshly opened Concord grapes. I smelled around the groceries for a week until I found a clerk opening a box of Concord grapes fresh from some northern vineyard. Had I been blindfolded at the time I should have sworn that I was smelling mountain laurel in bloom about a city block away. So, with my next question: What does a freshly opened box of Concord grapes smell like? Well, it smells like mountain laurel at a distance. . . .

The sense of smell has comparatively few words which belong to it exclusively. It has had imposed upon it a kind of vocabularian parasitism. . . . When we speak of an odor as "sharp" we are not borrowing from the original owner, touch, but from taste, who has borrowed it from touch, and the nose thus has it twice removed from the original sensation.

The sense of smell does most of its borrowing from the sense of taste. There may be a "soft" odor, but the nose is whimsical and conditions must be just right before softness may be recognized. Let us start with smokeless rural sky: it is April, of course, and half an hour ago the sun rose through a mist which gradually lifted, leaving the landscape with a washed-clean appearance. Bluebirds are heard singing in flight; and now—with these conditions satisfied—the west wind, beloved of the Greeks, bears a fragrance that is *soft*, being the blended breath of many flowers.

—Roy Bedichek,
in "The Sense of Smell,"
(Doubleday, $3.95)

JUST PUBLISHED

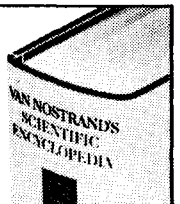
Physics IN YOUR HIGH SCHOOL

A handbook for the improvement of physics courses

Prepared by the American Institute of Physics, this basic handbook for school board members, administrators, and teachers provides background information, lists of recommended books and laboratory equipment, curriculum suggestions, and cost estimates.

Hardbound, $3.00 Paperbound, $1.50
Now at your bookstore
McGRAW-HILL

THE INDISPENSABLE ONE-VOLUME SCIENCE AUTHORITY



VAN NOSTRAND'S SCIENTIFIC ENCYCLOPEDIA

New, Enlarged Third Edition • Over 100,000 definitions • 14,000 Articles • 1,800 Pages • 1,400 Illustrations $29.75

D. VAN NOSTRAND COMPANY, INC.
Princeton, New Jersey

SATURDAY REVIEW
25 West 45th St., New York 36, N.Y.

Please enter my subscription for the term indicated below:

☐ Three years $16—

☐ Two years $12—

☐ One year $7—
(Add $1 per year for Canadian postage. $2 per year for other foreign)

☐ Payment enclosed ☐ Please bill me

Name_____

Address_____

City_____

Zone_____ State_____

4/2

Allow four weeks for delivery of first copy.

PRODUCED 2005 BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

THE RESEARCH FRONTIER

—Columbia University.

WHERE IS SCIENCE TAKING US? *Into places where old and comfortable notions no longer apply. Consider what is happening to such a ubiquitous function as motion. Moving things dominate our civilization. What keeps them moving smoothly? Bearings. What is a bearing? To most of us a bearing is a ball, or a metal cylinder, that relieves friction. When we think of bearings—we usually don't until a machine slows down or stops working—we put them back in running order with a couple of drops of oil. But that's old-fashioned in this age of the Sputniks. Gaseous lubricants, first suggested in 1854 by a Frenchman named G. Hirn and first tried experimentally by an American named Albert Kingsbury in 1897, have been promoted for the last decade by Professor Dudley Fuller, of the Mechanical Engineering Department at Columbia University. He now directs a massive research project at Franklin Institute.*

DUDLEY D. FULLER
(*Columbia University*)

AT BREAKFAST TIME on January 31, 1958 a Jupiter C rocket roared aloft from its launching pad at Cape Canaveral, Florida. After a long and precisely controlled journey through space, it placed in orbit the first American-made satellite of Earth, Explorer I.

That much is a matter of historical record. It is not so generally known that Explorer I's carrier vehicle was led along a pre-determined path by an automatic guidance system in which the bearings were lubricated by gas. The components of these bearings were completely separated by a cushioning film of gas.

Why use a gas? Why not use oil? In this particular case the reason was low friction. When gas is the lubricating fluid, friction is 100 to 1,000 times less than the friction developed at comparable speeds when the lubricant is oil. Gyroscopes and similar instruments that control guidance systems gain precision and accuracy as the friction in their bearings diminishes. Friction in the gas-lubricated bearings of Explorer I's rocket literally approached zero.

Other advantages of gas bearings are associated with low friction. One of these is high speed. In grinding machines, for example, the higher the speed the finer the cut and the smoother the finish. But the faster a machine's parts move, the more heat tends to be generated because of friction. Frequently in the past, heat generation and associated complications have frustrated the development of very high speed machinery and instrumentation.

Dentists have found that if they can reduce the heat in their drills, patients are less easily irritated. In the not-too-distant future, therefore, do not be surprised to find your dentist with a new type of drill. It spins at 400,000 to 500,000 revolutions per minute—that's 7,000 turns in a second—so quietly that I, for one, cannot decide, from listening simply to its vibration, whether or not it is running. Such high speed tools are made practical only through the use of a low friction bearing: in this instance, air.

Gas lubricants are not limited to small, instrument-type bearings. Large bearings capable of carrying heavy loads have also been built. At the Franklin Institute in Philadelphia, for example, a circular bearing, shaped like a flat disc, seven inches in diameter, has successfully cushioned a load of 1,800 pounds. Ultimately, this bearing is expected to be used in a closed-cycle gas turbine. A similar but even larger gas-lubricated bearing, ten inches in diameter, has supported a 4,000 pound load in tests at the laboratories of the National Aeronautics and Space Administration in Cleveland. This bearing is being considered for use as one of the basic elements in a hot-running jet engine, since another advantage of gas lubricants is their indifference to extreme changes in temperature.

In general, gases are stable over a wide range of operating conditions and thus do not undergo changes of phase as do other lubricants, which melt, freeze, vaporize, burn, or decompose. Indeed, it is possible to imagine a single bearing which might continue to function through a temperature range from −400° F to perhaps 2,000° and even 3,000° F. No presently known type of bearing could meet such a stringent demand—except the gas-lubricated bearing.

There is no restriction to the kind of gas that may be employed in lubrication. Even highly corrosive gases could be used if their presence was justified for other reasons. Thus, another significant advantage to the use of gas-lubricated bearings becomes apparent. If the machine or device is associated with a process that involves a gas, or even a vapor-like steam, the bearings of the machine can be lubricated by the same gas or vapor that is flowing through the system. This avoids what could be, in many cases, a very serious problem of contamination.

There are many processes where a small amount of leakage or seepage into the system from conventional liquid lubricants might well poison the entire contents of the system. In textile mills, for instance, oil used to lubricate spindles in the making of thread and cloth can stain the thread or cloth. The bearings could be floated in room air instead of in oil.

This same contamination problem is characteristic of machine elements associated with nuclear energy. In the gass-cooled nuclear reactor, gas is passed through the reactor to maintain temperatures within safe limits. The gas thereby becomes a carrier, and as such is piped into a gas turbine. In flowing through the turbine, the gas performs useful work by turning an electrical generator and so producing electrical power. The heat is removed from the gas by this action. The gas then continues its circulation and is further cooled in a heat exchanger before flowing back through the reactor again to repeat its cooling and power generating functions.

This can be a closed, package-type system capable of supplying electrical power for very long periods of time with a minimum of attention. But leakage from conventionally lubricated bearings could contaminate the system and upset the heat-transfer balance that must be maintained for efficient and effective operation. With gas-lubricated bearings, no such contamination is possible.

When fully developed, such packaged units of nuclear energy could be placed in remote regions of the Earth to provide continuing sources of reliable electrical power. It is not inconceivable that in the future, such a power package could be jettisoned into space, there to become part of a manned space station.

PRODUCED 2005 BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

KINGSLEY DOUBLE-CROSTIC NO. 1358

Reg. U.S. Patent Office

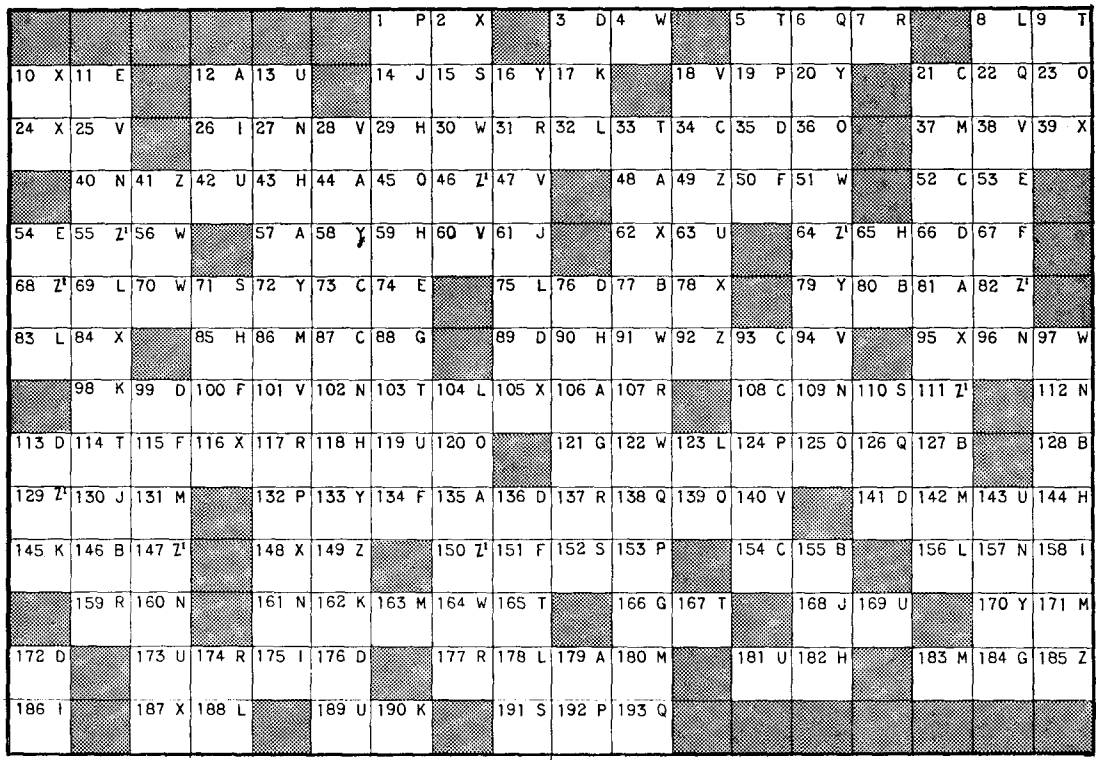
By Doris Nash Wortman

DEFINITIONS	WORDS
A. Style of machine-made furniture, late 19th-cent., named for English art critic.	48 44 135 12 106 179 81 57
B. Cause célèbre over which Tweedledum and Tweedledee fought their battle in "Through the Looking Glass."	127 80 128 155 77 146
C. Cold mountain wind along a coast.	21 34 87 93 154 73 52 108
D. Place for most public display of wares (3 wds.).	76 99 172 89 136 141 66 35 3 113 176
E. Not subject to deductions (var.).	74 11 53 54
F. Equip a theater with new chairs.	134 50 67 115 151 100
G. Clumsy, stupid person.	121 184 166 88
H. Preponderates.	182 90 144 85 43 118 59 65 29
I. Nickname for the friend of the Prince of Wales called by Wordsworth "degenerate Douglas" (2 wds.; 1724-1810).	175 186 158 26
L. Distinctive style; small straight line; precipitate motion.	168 130 61 14
K. She was the golden-haired one in "The Children's Hour."	17 162 98 190 145
L. Modern belief in mental healing other than any connected with Christian teachings (2 wds.).	69 123 75 188 8 32 83 156 178 104
M. Specifying situation tabooed as dangerous for three in World War I (3 wds.)	171 131 86 163 37 180 183 142

DEFINITIONS	WORDS
N. Constellation including the North Star (2 wds.).	27 160 112 161 102 109 96 157 40
O. A kind of covering for the neck and breast formerly worn by women.	120 23 45 36 139 125
P. What Lincoln declared they could not do for Gettysburg's ground.	19 124 192 153 132 1
Q. Extremely shabby little dwelling.	22 6 138 126 193
R. See Word W (2 wds.).	159 174 137 107 177 31 7 117
S. Seaport of Brazil; province of S. Africa.	71 191 110 15 152
T. A mathematical polar.	167 114 103 5 9 33 165
U. An epithet of giants used by Chapman (comp.).	42 119 189 173 143 63 13 169 181
V. See Word W. (2 wds.).	18 47 101 38 60 25 94 28 140
W. Followed by Word R, then Word V, familiar title of Ben Jonson's "To Celia," No. ix in "The Forest" (3 wds.).	97 122 164 51 70 30 4 91 56
X. Sixteenth-cent. prose play whose title Arnold Bennett borrowed for his novel in 1908 (3 wds. after "The").	62 24 39 148 187 10 2 84 116 95 78 105
Y. Apathetic; not disturbed emotionally.	133 170 79 72 16 20 58
Z. The angle which one surface or line makes with another when they are not at right angles.	92 149 49 41 185
Z1. The clerical profession (2 wds.).	64 129 82 46 55 68 147 150 111

DIRECTIONS

To solve this puzzle you must guess twenty-odd WORDS, the definitions of which are given in the column headed DEFINITIONS. Alongside each definition, there is a row of dashes—one for each letter in the required word. When you have guessed a word, write it on the dashes, and also write each letter in the correspondingly numbered square of the puzzle diagram. . . . When the squares are all filled in, you will find that you have completed a quotation from some published work. If read up and down, the letters in the diagram have no meaning. . . . Black squares indicate ends of words: if there is no black square at the right side of the diagram, the word carries over to the next line . . . When all the WORDS are filled in, their initial letters spell the name of the author and the title of the piece from which the quotation has been taken. Of great help to the solver are this acrostic feature and the relative shapes of words in the diagram as they develop. Authority for spellings and definitions is Webster's New International Dictionary, Second Edition.



Solution of last week's Double-Crostic will be found on page 11 of this issue.

PRODUCED 2005 BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Property of
AMBASSADOR COLLEGE LIBRA
Big Sandy, Texas

FIELD ENTERPRISES

EDUCATIONAL CORPORATION

takes pleasure in announcing that

Clarence L. Barnhart

together with his staff, an international group of special editors and consultants, and the Editors of World Book Encyclopedia

is now engaged in the preparation of the

WORLD BOOK ENCYCLOPEDIA DICTIONARY

This new Thorndike-Barnhart Dictionary will be the first dictionary created especially as a companion to a family encyclopedia. It will utilize all the Thorndike-Barnhart principles, which since 1935 have set the standards of lexicography in this country.

To be published early in 1962

review

PRODUCED 2005 BY UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED